NetApp

ONTAP 9.16.1 EMS reference

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accesscache events

accesscache.cfg events

accessCache.cfg.updateFailed

Severity

ERROR

Description

This message occurs when exports access cache configuration is modified but the new configuration could not be updated in the Nblade. The access cache is therefore operating with the older configuration.

Corrective Action

Retry the exports access cache configuration modification. If it continuosly fails, restart management gateway. If the problem persists, contact NetApp technical support.

Syslog Message

Access cache configuration change for Vserver "%s" on node "%s" could not be updated. Failure reason is "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.
node (STRING): Name of the Node on which the problem is occurring.
reason (STRING): The reason for the failure.

accesscache.nearlimits events

AccessCache.NearLimits

Severity

ALERT

Description

This message occurs when the access cache module is near its limit for entries. Reaching these limits can prevent new clients from being able to mount and perform I/O on the storage system, and can also cause clients to be granted or denied access based on stale cached information.

Corrective Action

Ensure that the number of clients accessing the storage system continues to be below the limits for access cache entries. If the set of clients accessing the storage system is constantly changing, consider using the "vserver export-policy access-cache config modify" command to reduce the harvest timeout parameter so that cache entries for clients that are no longer accessing the storage system can be evicted sooner.

Syslog Message

The exports access cache module is near its limit for entries (current entries count : %u, warning threshold : %u, entries limit : %u and current rules count : %u).

Parameters

    numEntriesCurrent (INT): Current number of entries in the cache.
    numEntriesWarningThreshold (INT): Warning threshold for number of entries.
    numEntriesLimit (INT): Limit on the number of entries.
    numRulesCurrent (INT): Current number of export rules in the cache.

accesscache.reachedlimits events

AccessCache.ReachedLimits

Severity

    EMERGENCY

Description

    This message occurs when the access cache module reaches its limit for entries. This condition can prevent new clients from being able to mount and perform I/O on the storage system. This condition can also cause clients to be granted or denied access based on stale information.

Corrective Action

    Ensure that the number of clients accessing the storage system is below the limits for access cache entries. If the set of clients accessing the storage system is constantly changing, consider using the "vserver export-policy access-cache config modify" command to reduce the harvest timeout parameter so that cache entries for clients that are no longer accessing the storage system can be evicted sooner.

Syslog Message

    The exports access cache module on this node reached its limit while trying to add %d new entries (current entries count : %u, entries limit : %u and current rules count : %u).

Parameters

    numEntriesDelta (INT): Number of new entries to be added.
    numEntriesCurrent (INT): Current number of entries in the cache.
    numEntriesLimit (INT): Limit on the number of entries.
    numRulesCurrent (INT): Current number of export rules in the cache.

acp events

acp.auto events

acp.auto.upgrade

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the ACP Processor has an older firmware image compared to the file revision present in '/etc/acp/acpp_fw'. The ACP Administrator is performing an automatic firmware upgrade.

Corrective Action

(None).

Syslog Message

Performing automatic firmware upgrade (image: %s) on %s (%s).

Parameters

file (STRING): Command issued.
inband_id (STRING): Inband ID of the module.
ip (STRING): IP address of the module.

acp.bind events

acp.bind.error

Severity

ERROR

Description

This message occurs when the system encounters a socket binding error while setting up the Alternate Control Path (ACP) Management Ethernet port. ACP functionality is inactive after encountering this.

Corrective Action

Verify that the Ethernet cable is properly attached to the ACP port and the green LED is on. Reenable the ACP port using the "options acp.enabled" command.

Syslog Message

An error was encountered while configuring the ACP Management Ethernet Port: %s.

Parameters

ErrorString (STRING): Error string.

acp.commerr events

acp.commErr

Severity

ALERT

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the SAS shelf I/O module (IOM) that is configured for in-band ACP is experiencing communication errors.

Corrective Action

Examine the event log for I/O errors that might have a common source such as faulty cabling, and correct them. If the errors perist, the IOM might need to be replaced. Contact NetApp technical support.

Syslog Message

IOM %s is reporting multiple in-band ACP communication errors. Shelf serial number: %s.

Parameters

inband_id (STRING): Inband ID of the module.
shelf_sno (STRING): Storage shelf serial number of the shelf where the I/O module is seated.

acp.commerrpersist events

acp.commErrPersist

Severity

ALERT

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that a SAS shelf I/O module (IOM) configured for in-band ACP is experiencing persistent communication errors.

Corrective Action

Examine the event log for I/O errors that might have a common source with this problem, such as faulty cabling. If other devices are not experiencing failures, then contact NetApp technical support to replace the IOM.

Syslog Message

IOM %s has failed after reporting multiple in-band ACP errors. Shelf serial number: %s.

Parameters

inband_id (STRING): Inband ID of the module.
shelf_sno (STRING): Storage shelf serial number of the shelf where the IOM is seated.

acp.dev events

acp.dev.notify

Severity

ERROR

Description

This message occurs when the Alternate Control Path (ACP) Administrator encounters an error event in a development-only kernel.

Corrective Action

Notify ACP development. No user action is needed.

Syslog Message

ACP error: %s

Parameters

debug_string (STRING): Error statement that occurred in a developement kernel.

acp.downrev events

acp.downrev.acpp

Severity

ERROR

Description

This message occurs when the Alternate Control Path Administrator cannot successfully download up-to-date firmware to an Alternate Control Path Processor (ACPP) or when the most up-to-date firmware image is not present in the /etc/acpp_fw/ directory.

Corrective Action

Verify that the latest ACPP firmware is available in the firmware directory. If the firmware update continually fails to download up-to-date firmware, then replace the ACPP I/O module.

Syslog Message

ACPP module %s (%s) has downrev firmware.

Parameters

inband_id (STRING): In-band ID of the ACPP module.
ip (STRING): IP address of the ACPP module.

acp.exp events

acp.exp.power.cycle

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor receives a command to power-cycle the SAS expander.

Corrective Action

(None).

Syslog Message

SAS expander power-cycle request sent to %s (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Status code returned by the 'expander power cycle' command.

acp.exp.power.cycle.failed

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Controller Path Administrator fails in its attempt to power-cycle the SAS expander.

Corrective Action

(None).

Syslog Message

SAS expander power-cycle request sent to %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Reason for the 'expander power-cycle' failure.
shelf_sno (STRING): Shelf serial number of the shelf where this I/O module is seated.

acp.exp.power.cycle.success

Severity

INFORMATIONAL

Description

This message occurs when an 'expander power cycle' command sent to the Alternate Controller Path (ACP) Processor succeeds.

Corrective Action

(None).

Syslog Message

SAS expander power cycle command sent to %s (%s) was successful, (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.exp.reset

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor receives a command to reset a SAS expander.

Corrective Action

(None).

Syslog Message

SAS expander reset issued to %s (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Status code returned by the 'expander reset' command.

acp.exp.reset.failed

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Controller Path Administrator fails in its attempt to reset the SAS expander.

Corrective Action

(None).

Syslog Message

SAS expander reset request sent to %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Reason for the 'expander reset' failure.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.exp.reset.success

Severity

INFORMATIONAL

Description

This message occurs when an 'expander reset' command sent to the Alternate Controller Path (ACP) Processor succeeds.

Corrective Action

(None).

Syslog Message

SAS expander reset command sent to %s (%s) was successful, (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.exp.vpd.failed

Severity

INFORMATIONAL

Description

This message occurs when an attempt to get SAS expander VPD (Vital Product Data) data from the Alternate Control Path Processor fails.

Corrective Action

(None).

Syslog Message

An 'expander vpd' request sent to %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Reason for the failure to get the SAS expander vpd data.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.fw events

acp.fw.download

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor receives a command to initiate a firmware download.

Corrective Action

(None).

Syslog Message

Firmware image %s will be downloaded to %s (%s), (disk shelf serial number: %s).

Parameters

    command (STRING): Firmware image name.
    inband_id (STRING): In-band ID of the module.
    ip (STRING): IP address of the module.
    status (STRING): Status code returned by the 'initiation' command.

acp.fw.download.failed

Severity

    INFORMATIONAL

Description

    This message occurs when the Alternate Controller Path Administrator fails in its attempt to download firmware.

Corrective Action

    (None).

Syslog Message

    Firmware download on %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

    inband_id (STRING): In-band ID of the module.
    ip (STRING): IP address of the module.
    status (STRING): Type of failure that occurred during the firmware download.
    shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.fw.download.success

Severity

    INFORMATIONAL

Description

    This message occurs when a 'firmware download' command sent to the Alternate Controller Path Processor succeeds.

Corrective Action

    (None).

Syslog Message

    Firmware download on %s (%s) was successful, (disk shelf serial number: %s).

Parameters

    inband_id (STRING): In-band ID of the module.
    ip (STRING): IP address of the module.
    shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.init events

acp.init.configIP

Severity

ERROR

Description

This message occurs when ONTAP® software cannot configure the Ethernet port designated for the Alternate Control Path (ACP) with 30 seconds, and marks the ACP as inactive.

Corrective Action

Verify the connection to the disk shelf ACP port, and make sure that it is not connected to a public network. Try plugging it into another Ethernet port with no devices.

Syslog Message

Could not configure the ACP Ethernet port within 30 seconds.

Parameters

(None).

acp.init.netmask

Severity

INFORMATIONAL

Description

This message occurs during initialization state, when the Alternate Control Path (ACP) Administrator netmask was configured incorrectly. The system sets the netmask to a default value.

Corrective Action

(None).

Syslog Message

Setting ACP Administrator netmask value to %s (reason: %s).

Parameters

value (STRING): Default netmask.
reason (STRING): Reason to choose the default.

acp.init.ssl

Deprecated

Deprecated as of ONTAP® version 9.2. The ACP process was never really responsible for initializing SSL, and has not tried to do so for a very long time.

Severity

ERROR

Description

This message occurs when the Alternate Control Path (ACP) process cannot initialize the underlying Secure Socket Library (SSL). The ACP Administrator will be inactive.

Corrective Action

(None).

Syslog Message

Could not initialize SSL.

Parameters

(None).

acp.invalid events

acp.invalid.vpd.info

Severity

ALERT

Description

This message occurs when the Alternate Control Path (ACP) system detects that an Alternate Control Path Processor (ACPP) has invalid VPD (Vital Product Data) info.

Corrective Action

Replace the Alternate Control Path Processor (ACPP).

Syslog Message

ACPP module %s (%s) has invalid VPD.

Parameters

inband_id (STRING): In-band ID of the ACPP module.
ip (STRING): IP address of the ACPP module.

acp.ioxm events

acp.ioxm.port.down

Severity

INFORMATIONAL

Description

This message occurs when the link status of one or more ports from the IOXM switch changes from "up" to "down".

Corrective Action

Verify that all cables in the IOXM switch ports are seated properly.

Syslog Message

IOXM switch port %d is down.

Parameters

port_num (INT): Switch port number of the IOXM switch.

acp.ioxm.port.up

Severity

INFORMATIONAL

Description

This message occurs when the link status of one or more ports from the IOXM switch changes from "down" to "up".

Corrective Action

(None).

Syslog Message

IOXM switch port %d is up.

Parameters

port_num (INT): Switch port number of the IOXM switch.

acp.locked events

acp.locked.wrench.link.down

Severity

INFORMATIONAL

Description

This message occurs when the link status of a locked wrench Ethernet port (on the back of the storage controller) changes from "up" to "down".

Corrective Action

Verify that the cable in the port is seated properly.

Syslog Message

The on-board locked wrench port is down.

Parameters

(None).

acp.locked.wrench.port.down

Severity

ERROR

Description

This message occurs when the link status of a locked wrench Ethernet port (on the back of the storage controller) changes from "up" to "down".

Corrective Action

Verify that the cable in the port is seated properly.

Syslog Message

The on-board locked wrench port is down; Alternate Control Path (ACP) management is inactive.

Parameters

(None).

acp.locked.wrench.port.up

Severity

INFORMATIONAL

Description

This message occurs when the link status of a locked wrench Ethernet port (on the back of the storage controller) changes from "down" to "up".

Corrective Action

(None).

Syslog Message

The on-board locked wrench port is up.

Parameters

(None).

acp.need events

acp.need.firmware.update

Severity

ERROR

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the ACP processor is running an older firmware revision that supports only the Secure Socket Library (SSL) channel. The "/etc/acpp_fw" directory requires the latest firmware file for the update to succeed. This module is marked as inactive.

Corrective Action

Copy the latest firmware file for this module into "/etc/acpp_fw", and then use the "system node run -node <nodename> -command storage download acp" command to download the firmware.

Syslog Message

ACP module %s (%s) needs a firmware upgrade, (disk shelf serial number: %s).

Parameters

inband_id (STRING): Inband ID of the module.
ip (STRING): IP address of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.need.module.upgrade

Severity

ERROR

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the I/O module (IOM) does not support InBand ACP.

Corrective Action

Upgrade the IOM to IOM6 or later.

Syslog Message

IOM %s does not support InBand ACP. Upgrade the IOM to IOM6 or later for supportability (disk shelf serial number: %s).

Parameters

inband_id (STRING): Inband ID of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this IOM is seated.

acp.no events

acp.no.ip

Severity

ERROR

Description

This message occurs when the node cannot find a free IP address for the Alternate Control Path (ACP) Management port. ACP functionality is disabled.

Corrective Action

Check the connection to the disk shelf ACP port and verify that it is not connected to a public network. Try plugging it into another Ethernet port with no devices, to see whether it is changed.

Syslog Message

Could not assign a free IP address to the ACP Management Ethernet port, disabling ACP functionality.

Parameters

(None).

acp.post events

acp.post.data.failed

Severity

INFORMATIONAL

Description

This message occurs when a 'post data' request that was sent to the Alternate Controller Path Processor

fails.

Corrective Action

(None).

Syslog Message

A 'post data' request sent to %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Reason for the 'post data' failure.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.shelf events

acp.shelf.power.cycle.failed

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor fails to complete a power cycle of the disk shelf.

Corrective Action

(None).

Syslog Message

Disk shelf power cycle request issued to %s failed because %s.

Parameters

shelf_id (STRING): In-band ID or Shelf Serial Number of the module.
status (STRING): Reason for failure.

acp.shelf.power.cycle.success

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor successfully completes a power cycle of the disk shelf.

Corrective Action

(None).

Syslog Message

Disk shelf power cycle request issued to %s is successful.

Parameters

    shelf_id (STRING): In-band ID or Shelf Serial Number of the module.

acp.shelf.power.off

Severity

    INFORMATIONAL

Description

    This message occurs when the Alternate Control Path (ACP) Processor receives a command to power off the disk shelf.

Corrective Action

    (None).

Syslog Message

    Disk shelf power off request issued to %s

Parameters

    shelf_id (STRING): In-band ID of the module or Shelf Serial Number.

acp.shelf.power.off.failed

Severity

    INFORMATIONAL

Description

    This message occurs when the Alternate Controller Path Administrator fails in its attempt to power-off the SAS disk shelf.

Corrective Action

    (None).

Syslog Message

    Disk shelf power off request sent to %s failed with status %s

Parameters

    shelf_id (STRING): In-band ID of the module.
    status (STRING): Reason for the power-off failure.

acp.shelf.power.off.success

Severity

    INFORMATIONAL

Description

    This message occurs when a 'shelf power off' command sent to the Alternate Controller Path (ACP) Processor succeeds.

Corrective Action

(None).

Syslog Message

Disk shelf power off command sent to %s was successful

Parameters

shelf_id (STRING): In-band ID of the module or Shelf Serial Number.

acp.shelf.power.on

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Processor receives a command to power on a disk shelf.

Corrective Action

(None).

Syslog Message

Disk shelf power up request issued to %s

Parameters

shelf_id (STRING): In-band ID of the module or Shelf Serial Number.

acp.shelf.power.on.failed

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Controller Path Administrator fails in its attempt to power on the SAS disk shelf.

Corrective Action

(None).

Syslog Message

Disk shelf power on request sent to %s failed with status %s

Parameters

shelf_id (STRING): In-band ID or Shelf Serial Number of the module.
status (STRING): Reason for the 'power-on' failure.

acp.shelf.power.on.success

Severity

INFORMATIONAL

Description

This message occurs when a 'shelf power on' command sent to the Alternate Controller Path (ACP) Processor succeeds.

Corrective Action

(None).

Syslog Message

Disk shelf power on command sent to %s was successful

Parameters

shelf_id (STRING): In-band ID of the module or Shelf Serial Number.

acp.sock events

acp.sock.error

Severity

ERROR

Description

This message occurs when the system encounters a socket error while setting up the Alternate Control Path (ACP) Management Ethernet port. ACP functionality is subsequently inactive.

Corrective Action

Verify that the Ethernet cable is properly attached to the ACP port and that the green LED is on. Reenable the ACP using the "options acp.enabled on" command.

Syslog Message

An error was encountered while configuring the ACP Management Ethernet Port: %s.

Parameters

ErrorString (STRING): Error string.

acp.update events

acp.update.failed

Severity

ERROR

Description

This message occurs when the Alternate Control Path (ACP) Administrator receives notification from the ACP Processor that it cannot upgrade the firmware because it is in some faulty state or the firmware file is not valid. The ACP processor will continue to run with the older firmware version.

Corrective Action

Try issuing the firmware download again using the "system node run -node <nodename> -command storage download acp" command.

Syslog Message

ACP module %s (%s) failed to upgrade firmware, (disk shelf serial number: %s).

Parameters

inband_id (STRING): Inband ID of the module.
ip (STRING): IP address of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.updateconfiguration events

acp.updateConfiguration

Severity

ALERT

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the SAS shelf I/O module (IOM) supports only the in-band ACP configuration.

Corrective Action

> Use the "storage shelf acp configure -channel in-band -is-enabled true" command to enable in-band ACP.

Syslog Message

IOM %s in shelf S/N: %s does not support out-of-band ACP.

Parameters

inband_id (STRING): Inband ID of the module.
shelf_sno (STRING): Storage shelf serial number of the shelf where the IOM is seated.

acp.upgrade events

acp.upgrade.successful

Severity

INFORMATIONAL

Description

This message occurs when the Alternate Control Path (ACP) Administrator determines that the ACP Processor has successfully upgraded the firmware.

Corrective Action

(None).

Syslog Message

ACP module %s (%s) successfully upgraded firmware, (disk shelf serial number: %s).

Parameters

inband_id (STRING): Inband ID of the module.
ip (STRING): IP address of the module.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

acp.voltage events

acp.voltage.status.failed

Severity

INFORMATIONAL

Description

This message occurs when a 'voltage status' request that was sent to the Alternate Controller Path Processor fails.

Corrective Action

(None).

Syslog Message

A voltage status request sent to %s (%s) failed with status (%s), (disk shelf serial number: %s).

Parameters

inband_id (STRING): In-band ID of the module.
ip (STRING): IP address of the module.
status (STRING): Reason for the 'voltage status' failure.
shelf_sno (STRING): Disk shelf serial number of the shelf where this I/O module is seated.

adminapi events

adminapi.input events

adminapi.input.badXml

Severity

ERROR

Description

This message occurs when the Data ONTAP server receives a bad XML request that does not contain the API name to be executed.

Corrective Action

Correct the input XML with the API name to be executed.

Syslog Message

Input XML does not contain the API name to be executed.

Parameters

(None).

adminapi.xml events

adminapi.xml.encoding

Severity

ERROR

Description

This event is generated in case of a mismatched XML encoding received by ONTAP server.

Corrective Action

Correct the mismatched encoding and retry the API.

Syslog Message

ONTAP server got unexpected encoding (expected %s, got %s

Parameters

expEnco (STRING): The expected xml encoding.
recvEnco (STRING): The actual received encoding.

adminapi.xml.namespace

Severity

ERROR

Description

This event is generated in case of a mismatched xml namespace received by ONTAP server.

Corrective Action

Correct the XML namespace and retry the API.

Syslog Message

ONTAP server namespace (expected %s, got %s

Parameters

expNamesp (STRING): The expected xml namespace.
uri (STRING): The received uri

adt events

adt.aggrcb events

adt.aggrcb.unlinkfail

Severity

ALERT

Description

This message occurs when the auditing subsystem cannot remove a stale aggregate control block entry from the Audit aggregate hash table. This could happen if the hash table rearrangement fails because of insufficient memory. In this condition, the auditing subsystem might not function or data access might be denied.

Corrective Action

Reboot the node. For high-availability (HA) configurations, perform a takeover and giveback from the partner to reduce the impact on system availability

Syslog Message

Auditing subsystem internal error: Aggregate Control Block: %s unlink failed for SVM with UUID: %s because of insufficient memory.

Parameters

AggregateUuid (STRING): UUID of the aggregate with a stale file handle.
VserverUuid (STRING): UUID of the Storage Virtual Machine(SVM, formerly Vserver).

adt.aucb events

adt.aucb.overwrite

Severity

INFORMATIONAL

Description

This message occurs in the auditing subsytem, when the subsystem overwrite an existing audit control block during audit control block creation. The overwriting of the audit control block is because of a failure in audit control block deletion.

Corrective Action

(None).

Syslog Message

Overwriting of audit control block occured.

Parameters

(None).

adt.cmdq events

adt.cmdq.init.fail

Severity

ALERT

Description

This message occurs when an internal audit command queue fails to initialize.

Corrective Action

Available system resources are required for this feature to function. The audit subsystem might not function, or might function with reduced performance. The best way to accomplish that is through a system reboot. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. After the reboot is complete, issue a "giveback" command to return services to this partner.

Syslog Message

Audit subsystem internal error: Audit command queue failed to initialize, system reboot might be required.

Parameters

(None).

adt.cmdthrd events

adt.cmdthrd.create.fail

Severity

ALERT

Description

This message occurs when audit initialization fails because the necessary execution threads cannot be created.

Corrective Action

Available system resources are required for this feature to function. The best way to accomplish that is through a system reboot. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. After the reboot is complete, issue a "giveback" command to return services to this partner.

Syslog Message

Audit subsystem internal error: Could not start required audit command threads, system reboot might be required.

Parameters

(None).

adt.dest events

adt.dest.access.fail

Severity

ERROR

Description

This message occurs when the audit consolidation job fails to write audit logs to the destination directory because the destination directory is not available. This event can leads to denial of service on Security Access Control List (SACL) enabled objects.

Corrective Action

Use the "volume show" command to check whether the destination volume exists, is online, and has sufficient free space. Use the "volume modify" command to bring the volume online, or increase volume size. Use the "vserver audit modify" command to modify the destination volume.

Syslog Message

Audit consolidation job failed to access destination directory "%s" of Vserver "%s"; consolidation job type is "%s".

Parameters

destination (STRING): Destination directory of the Vserver into which the consolidation job failed to write audit logs.
vserver (STRING): Vserver name whose consolidation job failed to write audit logs to the destination directory.
descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.dest.directory.full

Severity

EMERGENCY

Description

This message occurs when the audit consolidation process fails to write audit logs to the destination directory because the destination directory is full. This event can lead to denial of service on Security Access Control List (SACL) enabled objects.

Corrective Action

Use the "volume show" command to check whether the destination volume exists, is online, and has sufficient free space. Use the "volume modify" command to increase volume size. Use the "vserver audit modify" command to modify the destination volume path.

Syslog Message

Audit destination directory "%s" of Vserver "%s" is full; consolidation job type is "%s".

Parameters

destination (STRING): Destination directory of the Vserver that is full.
vserver (STRING): Vserver name whose audit consolidation process failed to write audit logs to the destination directory.
descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.dest.directory.unavail

Severity

EMERGENCY

Description

This message occurs when the audit consolidation job fails to write audit logs to the destination directory because the destination directory has become unavailable or has run out of space. This event can lead to denial of service for Security Access Control List (SACL) enabled objects.

Corrective Action

Use the "volume show" command to check whether the destination volume exists, is online, and has sufficient free space. Use the "volume modify" command to bring the volume online, or increase volume size. Use the "vserver audit modify" command to modify the destination volume.

Syslog Message

Audit destination directory "%s" of Vserver "%s" is unavailable or out of space; consolidation job type is "%s".

Parameters

destination (STRING): Destination directory of the Vserver to which the consolidation job failed to write audit logs.
vserver (STRING): Name of the Vserver name whose consolidation job failed to write audit logs to the destination directory.
descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.max events

adt.max.record.size.exceeded

Severity

ERROR

Description

This message occurs when a management command or file operation tries to generate an audit record, that is greater than the max_audit_record_size value. The File Services Auditing subsystem might fail the operation or truncate the record.

Corrective Action

Contact NetApp technical support.

Syslog Message

File Services Auditing subsystem failed the operation or truncated an audit record because it was greater than max_audit_record_size value. Vserver UUID=%s, event_id=%u, size=%u

Parameters

VserverUuid (STRING): UUID of then Vserver.
eventId (INT): Event ID for internal use.
size (INT): Record size.

adt.nfs events

adt.nfs.root.access.no.map

Severity

ERROR

Description

This message occurs in the auditing subsytem, when the NFS root user is accessing the file without a valid CIFS credential. Access is being allowed because the "ignore-nt-acl-for-root" NFS option is set, and hence the BUILTIN\Administrator credential is used for auditing.

Corrective Action

If NFS root user access to the file without NT ACL check should be prohibited, disable the "ignore-nt-act-for-root" option by using the "nfs modify -ignore-nt-acl-for-root" command. If a more appropriate CIFS credential should be used for auditing, configure the SVM name-mapping by using the "vserver name-mapping" command.

Syslog Message

NFS root user is accessing the file without a valid CIFS credential. Access is being allowed because the "ignore-nt-acl-for-root" NFS option is set, and hence the BUILTIN\Administrator credential is used for auditing.

Parameters

VserverUuid (STRING): UUID of the Storage Virtual Machine (SVM, formerly Vserver).

adt.service events

adt.service.block

Severity

EMERGENCY

Description

This message occurs when the volume that hosts the destination path where the final audit logs are stored is not accessible or does not have sufficient space and the audit consolidation service is not able to write to the volume. This prevents the audit service from working properly. File access and file audit logging is blocked.

Corrective Action

Use the "vserver audit show" command to get the name of the volume that hosts the destination path. Use the "volume show" command to check whether the volume exists, is online, and has sufficient free space. Use the "volume modify" command to increase volume size. Use the "vserver audit modify" command to modify the destination path.

Syslog Message

Audit destination directory "%s" of Vserver "%s" is either not accessible or full for the consolidation job type "%s". File-Operations which need to be audited will be denied. File Audit Logging will also fail.

Parameters

    destinationPath (STRING): Destination path.
    vserverName (STRING): Name of the Storage Virtual Machine (SVM, formerly Vserver).
    descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.service.ro.filesystem

Severity

    EMERGENCY

Description

    This message occurs when the volume that hosts the destination path where the final audit logs are stored is of type Data protection (DP) or Load sharing (LS). These volume types are read-only for the purposes of audit logging and logging will fail.

Corrective Action

    Use the "vserver audit modify" command to modify the destination volume.

Syslog Message

    Auditing and file-ops failing on SVM %s, the volume containing %s for consolidation job of type %s is read only filesystem.

Parameters

    vserverName (STRING): Name of the Storage Virtual Machine (SVM, formerly Vserver).
    destinationPath (STRING): Destination path.
    descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.service.unblock

Severity

    INFORMATIONAL

Description

    This message occurs when the volume that hosts the destination path where the final audit logs are stored was resized or cleaned up and the audit consolidation service is able to write to the volume thereby unblocking the audit service. File access and file audit logging is unblocked.

Corrective Action

    (None).

Syslog Message

    Audit destination directory "%s" of Vserver "%s" for consolidation job of type "%s" is now accessible and File-Operations which need to be audited will be unblocked. File Audit Logging will also be unblocked.

Parameters

    destinationPath (STRING): Destination path.
    vserverName (STRING): Name of the Storage Virtual Machine (SVM, formerly Vserver).
    descriptor (STRING): Type of consolidation job - CIFS/S3.

adt.stgvol events

adt.stgvol.info.notavailable

Severity

ERROR

Description

This message occurs when retreiving staging volume information fails. This might be due to an internal system problem or the staging volume creation failed.

Corrective Action

Contact Cserver admin to check if staging volume has been created.

Syslog Message

Audit subsystem internal error: Either staging volume %s is not created or unable to retrieve staging volume information.

Parameters

volName (STRING): The Name of the staging volume.

adt.stgvol.missing

Severity

ALERT

Description

This message occurs when retrieving staging volume information fails. Either the staging volume was not created or information cannot be retrieved due to some internal error. As a result, auditing is not performed for operations on the corresponding volume.

Corrective Action

Use the command "vserver audit repair" in diagnostic mode to correct the problem.

Syslog Message

Audit subsystem internal error: Staging volume "%s" is either not created or not available.

Parameters

volName (STRING): Name of the volume that is missing.

adt.stgvol.nospace

Severity

EMERGENCY

Description

This message occurs when a staging volume does not have enough space and the audit service tries to create a new staging file or directory for writing audit logs.

Corrective Action

Check the volume for older staging files that are no longer required and remove those files. Then retry the operation.

Syslog Message

Audit subsystem internal error: Staging volume %s is full.

Parameters

volName (STRING): Name of the volume that is full.

adt.stgvol.offline

Severity

EMERGENCY

Description

This message occurs when a staging volume is offline and the audit service tries to write an audit log into the staging volume.

Corrective Action

Contact the Cserver administrator to set the staging volume status to online.

Syslog Message

Audit subsystem internal error: Staging volume %s is offline.

Parameters

volName (STRING): The Name of the volume which is offline.

adt.wrkrq events

adt.wrkrq.init.fail

Severity

ALERT

Description

This message occurs when an internal audit worker queue fails to initialize.

Corrective Action

Available system resources are required for this feature to function. The Audit subsystem might not function, or might function with reduced performance. The best way to accomplish that is through a system reboot. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. After the reboot is complete,issue a "giveback" command to return services to this partner.

Syslog Message

Audit subsystem internal error: Audit worker queue failed to initialize; system reboot might be required.

Parameters

(None).

adt.wrkrthrd events

adt.wrkrthrd.create.fail

Severity

ALERT

Description

This message occurs when audit initialization fails because the necessary execution threads cannot be created.

Corrective Action

Available system resources are required for this feature to function. The best way to accomplish that is through a system reboot. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. After the reboot is complete,issue a "giveback" command to return services to this partner.

Syslog Message

Audit subsystem internal error: Could not start required audit worker threads; system reboot might be required.

Parameters

(None).

aggr events

aggr.full events

aggr.full

Severity

ALERT

Description

This message occurs when an aggregate is full.

Corrective Action

Ensure that all containers in the pod are online and healthy. Check if the REST server is up and responding.

Syslog Message

Aggregate "%s" is full.

Parameters

aggr_name (STRING): Name of the aggregate.

aggr.grow events

aggr.grow.completed

Severity

NOTICE

Description

This message occurs when request to grow an aggregate is completed successfully. The request to grow the aggregate could be DMAP-triggered or SDE-triggered.

Corrective Action

(None).

Syslog Message

Request to grow aggregate "%s" is complete. Old size: %lu, new size: %lu, old state: %d, new state: %d.

Parameters

aggr_name (STRING): Name of the aggregate.
old_size (LONGINT): Size of the aggregate before it is grown.
new_size (LONGINT): Size of the aggregate after it is grown.
previous_state (INT): State of the aggregate before it is grown.
current_state (INT): State of the aggregate after it is grown.

aggr.inconsistent events

aggr.inconsistent.modify

Severity

INFORMATIONAL

Description

This message occurs when the 'aggr inconsistent' command is used to modify a state of an aggregate.

Corrective Action

(None).

Syslog Message

Aggregate %s: 'aggr inconsistent' command used to change inconsistent state to '%s'.

Parameters

aggr (STRING): Name of the aggregate.
state (STRING): State of the action: "set" or "clear".

aggr.max events

aggr.max.size.increased

Severity

INFORMATIONAL

Description

This message occurs as a reminder that the maximum aggregate size limit is increased from the default value defined in the Platform Specific Module (PSM) table.

Corrective Action

(None).

Syslog Message

Maximum aggregate size limit is increased from %ld TB to %ld TB.

Parameters

old_limit (LONGINT): Original aggregate size limit as defined in the PSM table.
new_limit (LONGINT): New maximum aggregate size limit.

aggr.provisioning events

aggr.provisioning.unassigned.detected

Severity

NOTICE

Description

This message is issued when the aggregate provisioning recommendation generated for the cluster is found to be incomplete due to the presence of unassigned disks. Any spare disks that are not owned by a node in the cluster cannot contribute to the usable capacity of new aggregates.

Corrective Action

Use the following steps to resolve the issue: - Run 'storage disk show -container-type unassigned' to list all the unassigned disks in the cluster. To assign all unassigned disks, run 'storage disk assign -auto true -node [node-name]'. - If there are still unassigned disks in the cluster, refer to the Storage Management Guide for manual disk assignment best practices. - For further information or assistance, contact NetApp technical support.

Syslog Message

The generated aggr provisioning recommendation might be incomplete because of the following reason: %s

Parameters

details (STRING): Details of the number of unassigned disks visible to a given node
source (STRING): The source that generated this warning.

aggr.relocation events

aggr.relocation.failed

Severity

ERROR

Description

This message occurs when relocation of an aggregate fails.

Corrective Action

Refer to other generated error messages to identify the exact cause of failure and the corrective action.

Syslog Message

Relocation of aggregate %s failed by node %s because %s.

Parameters

aggr (STRING): Name of the aggregate that was not relocated.
node (STRING): Name of the node that failed the relocation.
msg (STRING): Error that prevented relocation.

aggr.resize events

aggr.resize.request.sent

Severity

NOTICE

Description

This message occurs when a request to resize an aggregate is sent to the REST server as part of the storage thin provisioning feature in Quark.

Corrective Action

(None).

Syslog Message

Triggering resizing of aggregate for %s. Current size: %lu, new size: %lu.

Parameters

aggr_name (STRING): Name of the aggregate.
current_size (LONGINT): Current size of the aggregate.
new_size (LONGINT): New size of the aggregate after being resized.

aggr.resize.response.failure

Severity

ALERT

Description

This message occurs when the REST server returns an error for a request to resize an aggregate.

Corrective Action

Ensure that all containers in the pod are online and healthy. Check if the REST server is up and responding.

Syslog Message

Server returned error: %d for the resizing request. Aggregate: %s, current size: %lu, new size: %lu".

Parameters

error (INT): Error returned from REST server.
aggr_name (STRING): Name of the aggregate.
current_size (LONGINT): Current size of the aggregate.
new_size (LONGINT): New size of the aggregate after being resized.

aggr.resize.response.success

Severity

NOTICE

Description

This message occurs when the REST server returns "success" as a response to the request to resize an aggregate.

Corrective Action

(None).

Syslog Message

Server returned "success" as a response to a resizing request. Aggregate: %s, current size: %lu, new size: %lu.

Parameters

aggr_name (STRING): Name of the aggregate.
current_size (LONGINT): Current size of the aggregate.
new_size (LONGINT): New size of the aggregate after being resized.

aggr.wafliron events

aggr.wafliron.attemptStart

Severity

INFORMATIONAL

Description

This message occurs when wafliron is started. A later message indicates the success or failure of wafliron.

Corrective Action

(None).

Syslog Message

(None).

Parameters

volname (STRING): Volume name.
arguments (STRING): Arguments supplied to wafliron on the command line.

aggrcopy events

aggrcopy.dst events

aggrcopy.dst.autoRestrictMsg

Severity

NOTICE

Description

This event is issued when an aggregate copy start is issued on an aggregate which is offline.

Corrective Action

Aggr copy start is issued on a restricted aggregate use "aggr restrict" to restrict the destination aggregate.

Syslog Message

Aggr copy automatically restricting destination aggregate %s (currently offline).

Parameters

dst (STRING): The aggr copy destination aggregate

aggrcopy.dst.noMemory

Severity

ERROR

Description

This event is issued when there is insufficient memory on the aggr copy destination for the transfer to continue.

Corrective Action

(None).

Syslog Message

System is low on memory, aborting aggr copy destination transfer.

Parameters

(None).

aggrcopy.dst.revert

Severity

NOTICE

Description

This event is issued when an aggr copy start operation has to revert the checksum state of the destination volume aggregate because the source and destination aggregates have differing checksum states.

Corrective Action

No corrective action required.

Syslog Message

An aggr copy transfer to destination aggregate %s has found that the source and destination aggregates have differing checksum states. Data ONTAP is aborting the transfer and reverting the checksum state for the destination aggregate. After ONTAP displays a message showing the revert is complete, you will need to retry the operation. You can use the "aggr status -c" command to see the progress of the reversion.

Parameters

dst (STRING): The aggr copy destination volume

aggrcopy.dst.revertErr

Severity

NOTICE

Description

This event is issued when a aggr copy start operation is not able to revert the checksum state of the destination aggregate.

Corrective Action

(None).

Syslog Message

ONTAP cannot revert the checksum state of destination aggregate %s.

Parameters

dst (STRING): The aggr copy destination

aggrcopy.dst.reverting

Severity

NOTICE

Description

This event is issued when an aggr copy start operation is issued on an aggregate which is reverting its checksum state.

Corrective Action

(None).

Syslog Message

Aborting aggr copy transfer to aggregate %s because it is reverting its checksum state.

Parameters

dst (STRING): The aggr copy destination aggregate

aggrcopy.restart events

aggrcopy.restart.dst.chkFail

Severity

NOTICE

Description

This message occurs when 'aggr copy' checks for restart capability on the destination storage system fail. The 'aggr copy' transfer operation cannot be restarted. It starts as usual from the beginning (0 %%) without any further user action.

Corrective Action

No action necessary

Syslog Message

Destination side checks fail; 'aggr copy' transfer starts from 0%%.

Parameters

(None).

aggrcopy.src events

aggrcopy.src.snapshotErr

Severity

ERROR

Description

This event is issued when we are not able to obtain all the snapshot information, from the vol copy source volume, required for a vol copy transfer.

Corrective Action

(None).

Syslog Message

Aggr copy not able to obtain snapshot information from source aggregate %s

Parameters

srcaggr (STRING): The aggr copy source volume

air events

air.certify events

air.certify.cancel

Severity

ALERT

Description

This message occurs when a metadata inconsistency is discovered inside a file system feature that is read-only and therefore cannot be immediately corrected. One or more processes in ONTAP® software might have been canceled when they encountered the inconsistency.

Corrective Action

No immediate corrective action is necessary, because the ONTAP process that encountered the inconsistency has been automatically canceled. If the condition persists, contact NetApp technical support for assistance.

Syslog Message

AIR certification of %s failed: %s, %s ; message %s canceled for subtype %d

Parameters

fh (STRING): File handle of the object with an inconsistency.
condition (STRING): Specific metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.
msg (STRING): The ONTAP process that encountered the inconsistency.
subtype (INT): Subtype of the inode encountering the inconsistency.

air.cleared events

air.cleared.qtm.entry

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsytem clears an entry in the qtree metafile because of inconsistent data within that entry.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. In the qtree metafile %d, AIR cleared an entry that corresponds to the TID %d in volume %s.

Parameters

source (STRING): Location where qtree entry certification failed.
inode (INT): Inode number of qtree metafile.

tid (INT): TID.
volume (STRING): Name of the volume.

air.corrected events

air.corrected.qtree.tid

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsystem repairs an inode having a corrupted qtree ID.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. AIR repaired qtree inode %d: old TID %d, new TID %d, fgindex %d.

Parameters

source (STRING): Location where qtree entry certification failed.
inode (INT): Inode number.
old_tid (INT): Old TID.
new_tid (INT): New TID.
fgindex (INT): Fgindex of the qtree root.

air.disable events

air.disable.async.delete.cli

Severity

ALERT

Description

This message occurs when any inconsistency is found with the async delete trashbin directory of a volume.

Corrective Action

The "asynchronous directory delete from the client" feature has been disabled on this volume. To re-enable the feature, use the (privilege: advanced) "volume file async-delete client enable" command

Syslog Message

The "async directory delete from the client" feature was disabled in volume %s, after an inconsistency was detected with the trashbin directory.

Parameters

volume (STRING): Name of the volume.
source (STRING): Location of the failing metadata validation.

air.disable.preserve.unlink

Severity

NOTICE

Description

This message occurs when any inconsistency is found with the trash directory that is used for the preserve unlink option of a volume. Then, the preserve unlink option is disabled for that volume. The trash directory that is used for the preserve unlink option is used to preserve deleted files for NFSv41 when they have existing share locks.

Corrective Action

None. The system reverts to the behavior it used before the preserve unlink option was enabled; that is, it will not preserve deleted files with share locks.

Syslog Message

The preserve unlink option of volume "%s", was disabled after an inconsistency with the trash directory was detected.

Parameters

volume (STRING): Name of the volume.
source (STRING): Location of the failing metadata validation.

air.enabled events

air.enabled.fg.qtree

Severity

NOTICE

Description

This message occurs in a FlexGroup, when the qtree support is enabled on the volume, but disabled on one or more constituent volumes. ONTAP® software automatically enabled the qtree support on the relevant constituent volumes.

Corrective Action

This message indicates that the qtree support is enabled on the volume, but disabled in one or more constituents within the FlexGroup. ONTAP® software automatically enabled the qtree support in the relevant constituent FlexGroup volumes.

Syslog Message

Enabled qtree support in FlexGroup constituent volume %s after detecting inconsistency in %s.

Parameters

volume (STRING): Name of the volume.
source (STRING): Location of the failing metadata validation.

air.evicted events

air.evicted.qtm.entry

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsystem evicts an entry in the qtree metafile because of inconsistent data within that entry.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. In the qtree metafile %d, AIR evicted an entry that corresponds to the TID %d in volume %s.

Parameters

source (STRING): Location where qtree entry certification failed.
inode (INT): Inode number of the qtree metafile.
tid (INT): TID.
volume (STRING): Name of the volume.

air.fc events

air.fc.origin.corrupt

Severity

ALERT

Description

This message occurs when inconsistencies are detected in the origin of this FlexCache® volume. The affected files remain inaccessible from this FlexCache volume until the corrective action is taken.

Corrective Action

If the origin of this FlexCache volume is a FlexVol® volume, then run wafliron on the origin FlexVol volume. If the origin is a FlexGroup volume, then list the affected files from a NFS or a CIFS client on the origin volume. For more information or assistance, contact NetApp technical support.

Syslog Message

The fh %s in Origin of this FlexCache volume %s%s contains inconsistencies.

Parameters

fh (STRING): File handle of the affected inode.
vol (STRING): FlexCache volume name.
volident (STRING): Unique identifier for the volume if volume name alone is insufficient.

air.qtm events

air.qtm.rebuild.scan.state

Severity

NOTICE

Description

This message occurs when the state of a scanner used to rebuild the qtree metafile changes.

Corrective Action

(None).

Syslog Message

Scanner to rebuild the qtree metafile is %s.

Parameters

state (STRING): State of the scanner.

air.removed events

air.removed.remote.lck.entry

Severity

NOTICE

Description

This message occurs when there is an inconsistency in the remote lock entry metafile. The inconsistent entry is removed upon detection.

Corrective Action

(None).

Syslog Message

Remote lock entry %s certification failed: expression %s, source %s, state (%s).

Parameters

entry (STRING): Lock entry type and origin file ID pair describing the entry.
rlem (STRING): Describes the metafile to which this lock entry belongs to.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.
state (STRING): Description of the remote lock entry metafile metadata state that was found to be inconsistent.

air.repair events

air.repair.prsist.lock.entry

Severity

NOTICE

Description

This message occurs when there is an inconsistency in the persistent lock entry metafile. The inconsistent entry is repaired upon detection if there is a corresponding in-core record.

Corrective Action

(None).

Syslog Message

Persistent lock entry %s certification failed: Condition: %s, source: %s, state: %s.

Parameters

entry (STRING): Lock entry type and origin file ID pair describing the entry.
condition (STRING): Initial validation test that fails.
source (STRING): Location of the failing metadata validation test.
state (STRING): Description of the remote lock entry metafile metadata state that is found to be inconsistent.

air.repaired events

air.repaired.bucket.header

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a metadata bucket header record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

TOC metadata (%s) has an inconsistent record for the bucket upload table (%s). %s.

Parameters

toc_fh (STRING): File handle of the TOC metadata file.
upload_table_fh (STRING): File handle of the bucket upload table file.
state (STRING): Description of the metadata that was found to be inconsistent.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.

air.repaired.cbmap

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the type/subtype of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

CloudBlockMap metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the CloudBlockMap metafile that was found to be inconsistent.

air.repaired.cbmap.entry

Severity

NOTICE

Description

This message occurs when context mismatch is discovered in any entry of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

%s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the metafile that was found to be inconsistent.
pvbn (LONGINT): Inconsistency found in cbmap entry of this PVBN.

air.repaired.cbmap.header

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the header of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

%s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the metafile that was found to be inconsistent.

air.repaired.chapter.entry

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Chapter metadata (%s) has inconsistent record for object (%s). Source %s (%s).

Parameters

chapter_fh (STRING): File handle of the metadata file.
object_fh (STRING): File handle of the object.
source (STRING): Location of the failing metadata validation test.
condition (STRING): Initial metadata validation test that failed.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbFh

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a metadata bucket header record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the css snapdb filehandle information of the TOC metadata %s belonging to bucket %u is being repaired.

Parameters

toc_fh (STRING): File handle of the TOC metafile.
bucket_num (INT): Bucket number.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbHdr

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the user header of the css snapdb metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in user header of css snapdb metafile %s belonging to bucket %u is being repaired.

Parameters

snapdb_fh (STRING): File handle of the snapdb metafile.
bucket_num (INT): Bucket number.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbInode

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the css snapdb metafile inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the css snapdb inode information of the TOC metadata %s belonging to bucket %u is being repaired.

Parameters

toc_fh (STRING): File handle of the TOC metafile.
bucket_num (INT): Bucket number.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbTid

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the qtree id of the css snapdb metafile inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the TID of the css snapdb metafile inode %s belonging to bucket %u is being repaired.

Parameters

> **snapdb_fh** (STRING): File handle of the snapdb metafile.
> **bucket_num** (INT): Bucket number.
> **state** (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.dir.hole

Severity

> NOTICE

Description

> This message occurs when an inconsistency is discovered in the hole list of a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

> (None).

Syslog Message

> Directory hole list %s certification failed: %s, %s.

Parameters

> **fh** (STRING): File handle of the affected directory.
> **condition** (STRING): Initial metadata validation test that failed.
> **source** (STRING): Location of the failing metadata validation test.

air.repaired.dir.inode

Severity

> NOTICE

Description

> This message occurs when an inconsistency is discovered in a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

> (None).

Syslog Message

> Directory %s certification failed: %s, %s.

Parameters

> **fh** (STRING): File handle of the affected directory.
> **condition** (STRING): Initial metadata validation test that failed.
> **source** (STRING): Location of the failing metadata validation test.

air.repaired.enc.vvol.info

Severity

> NOTICE

Description

This message occurs when an inconsistency is discovered in the encryptable aggregate metafile inodes encrypted flexvol information which stores vvol_btid and vvol_fid. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Inode %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected inode.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.

air.repaired.fabriclink

Severity

NOTICE

Description

This message occurs when a metadata inconsistency is discovered and repaired within an object storage replication data structure.

Corrective Action

(None).

Syslog Message

AIR repaired %s, condition %s at %s, object "%s"

Parameters

fh (STRING): File handle of the replication data structure that was found to be inconsitent.
expr (STRING): The nature of the inconsistency that was discovered and repaired.
source (STRING): Location where the metadata inconsistency was detected.
object (STRING): Optionally represents the name of a particular object whose replication state was affected.

air.repaired.fc.dir

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in any directory in the volume. The inconsistency is repaired automatically as soon as it is discovered.

Corrective Action

(None).

Syslog Message

Evicted inconsistent directory with fh %s due to corruption in volume %s.

Parameters

fh (STRING): File handle of the affected inode.
volume (STRING): Name of the volume.

air.repaired.fc.qtree.id

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the qtree ID of an inode. The inconsistent inode is evicted automatically as soon as it is discovered.

Corrective Action

(None).

Syslog Message

Evicted inconsistent inode with fh %s due to a corrupted qtree ID: qtree ID %d, volume %s.

Parameters

fh (STRING): File handle of the affected inode.
tid (INT): Qtree ID.
volume (STRING): Name of the volume.

air.repaired.hardlink.i2p

Severity

NOTICE

Description

This message occurs when the AIR subsystem repairs an inconsistent inode and previously unreachable hard links are returned to availability.

Corrective Action

(None).

Syslog Message

AIR repaired inconsistent hardlink for inode %d: %d %d %s

Parameters

inode (INT): Inode number.
parent_inode (INT): Parent inode number.
link_count (INT): Inode link count.
volume (STRING): Name of the volume.

air.repaired.label.database

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within a WAFL label database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Label database %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the metadata that was found to be inconsistent.

air.repaired.lsm.bfc.lkp

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM BFC Lookup file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM BFC Lookup file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.
block (LONGINT): Block number of the inconsistent block.
source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.bloom.file

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Bloomfilter file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Bloomfilter file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.
block (LONGINT): Block number of the inconsistent block.
source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.info.file

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the LSM Info file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Info file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.
block (INT): Block number of the inconsistent block.
source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.keyspc.file

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Keyspace Information file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Inconsistent LSM Keyspace Information metafile on aggregate "%s" was repaired. Source %s.

Parameters

aggregate (STRING): Name of the aggregate.
source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.lookup.file

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Lookup file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Lookup file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.
block (LONGINT): Block number of the inconsistent block.
source (STRING): Location of the failing metadata validation test.

air.repaired.merkle

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata (Merkle tree file). Repairs to the Merkle tree file have automatically been started.

Corrective Action

(None).

Syslog Message

Merkle file "%s" certification failed: %s, directory ID (%llu), branch ID (%llu), buffer level %d, fbn (%llu), Merkle tree level (%d)

Parameters

fh (STRING): File handle of the Merkle file that needs repairs.
condition (STRING): Initial validation test that failed.
dir_id (LONGINT): Slice directory ID of the Merkle file.
branch_id (LONGINT): Slice branch ID of the Merkle file.
level (INT): Buffer level of the Merkle file block.
fbn (LONGINT): File block number (FBN) of the Merkle file.
merkle_level (INT): Merkle checksum level of the Merkle file.
source (STRING): The location of the failing validation test.

air.repaired.mpu.catalog

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a multipart upload catalog record of a bucket upload table. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Bucket upload table (%s) has an inconsistent record for the multipart upload catalog (%s). %s.

Parameters

upload_table_fh (STRING): File handle of the bucket upload table file.
mp_catalog_fh (STRING): File handle of the multipart catalog file.
state (STRING): Description of the metadata that was found to be inconsistent.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.

air.repaired.multipart.database

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata of a multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The database validation test that failed.
source (STRING): The location of the failing database validation test.
state (STRING): A description of the metadata that was found to be inconsistent.

air.repaired.multipart.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The initial multipart inode validation test that failed.
source (STRING): The location of the failing multipart inode validation test.

air.repaired.multipart.record

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata of the multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial record validation test that failed.
source (STRING): The location of the failing record validation test.
state (STRING): A description of the record that was found to be inconsistent.

air.repaired.multipart.rectify

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the rectification metadata for a multipart file. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial record validation test that failed.
source (STRING): The location of the failing record validation test.
state (STRING): A description of the record that was found to be inconsistent.

air.repaired.multipart.userheader

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the userheader section of a multipart file. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s userheader certification failed: %s, %s

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial userheader validation test that failed.
source (STRING): The location of the failing userheader validation test.

air.repaired.name.info.flags

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the name information flags of a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Name information flags for directory entry %s corrected at block %d and index %d. Source %s.

Parameters

fh (STRING): File handle of the affected directory.
block (INT): Block number that contains the affected entry
index (INT): Location within the block that holds the affected entry
source (STRING): Location of the failing metadata validation test.

air.repaired.pct.entry

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

PCT metadata has inconsistent record for bucket (%u) file (%u). Source %s (%s, %s).

Parameters

    bucketid (INT): Bucket identifier.
    fileid (INT): File identifier.
    source (STRING): Location of the failing metadata validation test.
    condition (STRING): Initial metadata validation test that failed.
    state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.qtree.id

Severity

    NOTICE

Description

    This message occurs when an inconsistency is discovered in the qtree ID of an inode. The inconsistency is repaired automatically as soon as it is discovered.

Corrective Action

    (None).

Syslog Message

    Repaired inconsistent inode with fh %s due to a corrupted qtree ID: Old qtree ID %d, new qtree ID %d, volume %s.

Parameters

    fh (STRING): File handle of the affected inode.
    old_tid (INT): Old qtree ID.
    new_tid (INT): New qtree ID.
    volume (STRING): Name of the volume.

air.repaired.qtree.metafile

Severity

    NOTICE

Description

    This message occurs when an inconsistency is discovered in a qtree metafile.The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

    (None).

Syslog Message

    Qtree metafile %s

Parameters

    details (STRING): Description of the metadata failure that has been fixed.

air.repaired.qtree.root

Severity

NOTICE

Description

This message occurs when the system discovers an inconsistency between the qtree file root and a qtree metafile entry. The system repairs this inconsistency automatically, as soon as it detects it.

Corrective Action

(None).

Syslog Message

Qtree root %s certification failed: %s, %s corrections: %s.

Parameters

fh (STRING): File handle of the affected qtree root.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.
state (STRING): Description of the metadata that has been fixed.

air.repaired.ral.clone.exp

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered between the source, clone created via ral retrieve and the clone expansion structure in source's remote state.

Corrective Action

(None).

Syslog Message

Remote RAL Clone %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected clone.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the source and clone files.

air.repaired.rclone.database

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within the WAFL Remote Clone Database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote Clone Database %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the metafile that was found to be inconsistent.

air.repaired.rclone.record

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in any record of the WAFL Remote Clone Database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote Clone Record %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected record.
condition (STRING): The initial record validation test that failed.
source (STRING): The location of the failing record validation test.
state (STRING): A description of the entry that was found to be inconsistent.

air.repaired.remote.index

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within the WAFL RAL index. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote index %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): The RAL index record that was discovered to be incorrect.

air.repaired.remote.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered between a file and its RAL state within WAFL. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the RAL state metadata that was found to be inconsistent.

air.repaired.remote.metafile

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within a WAFL RAL metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the RAL metafile that was found to be inconsistent.

air.repaired.remote.tallies

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the tallies in Remote Entry metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the RAL metafile that was found to be inconsistent.

air.repaired.remote.writeback.dirtylist.record

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered between a file and its writeback metadata within WAFL. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote inode %s writeback certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the writeback metadata that was found to be inconsistent.

air.repaired.rlem.tallies

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the tallies in Remote Lock Entry metafile(RLEM). The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote lock entry metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.
rlem (STRING): Describes the metafile to which this lock entry belongs to.

condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the RLEM that was found to be inconsistent.

air.repaired.slice

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata (slice file). Repairs to the slice file from the secondary copy have automatically been started.

Corrective Action

(None).

Syslog Message

Slice file "%s" certification failed: %s, dir ID (%llu), branch ID (%llu), level %d, fbn (%llu)

Parameters

fh (STRING): File handle of the slice file that needs repairs.
condition (STRING): The initial validation test that failed.
dir_id (LONGINT): Slice directory ID of the slice file.
branch_id (LONGINT): Slice branch ID of the slice file.
level (INT): Buffer level of the slice file block.
fbn (LONGINT): File block number (FBN) of the slice file.
source (STRING): The location of the failing validation test.

air.repaired.snapinfo.block

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the persistent lock entry metafile. The inconsistent entry has been removed.

Corrective Action

(None).

Syslog Message

Repaired inconsistent block (%s) found in Snapinfo metafile on volume "%s".

Parameters

state (STRING): Description of the Snapinfo metafile block that was found to be inconsistent.
volume (STRING): Name of the volume.

air.repaired.ssm.iftp.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in ssm iftp metafile. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

AIR vlist metafile %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected metafile.
condition (STRING): Initial metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.

air.repaired.toc.entry

Severity

ALERT

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection. But it can leave behind lost objects that are no longer pointed to by the namespace.

Corrective Action

The command "object-store-server lost-object-recovery start" under diag privilege can be used to add lost objects back into namespace. The progress of this command can be monitored using "object-store-server lost-object-recovery show" command.

Syslog Message

TOC metadata (%s) has inconsistent record for chapter (%s). %s (%s).

Parameters

toc_fh (STRING): File handle of the TOC metadata file.
chapter_fh (STRING): File handle of the chapter metadata file.
state (STRING): Description of the metadata that was found to be inconsistent.
condition (STRING): Initial metadata validation test that failed.

air.repaired.user.ind

Severity

ERROR

Description

This message occurs when an inconsistency is discovered in the user indirect block. The inconsistency is repaired automatically immediately upon detection.

Corrective Action

(None).

Syslog Message

User indirect %s certification failed: %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): Initial metadata validation test that failed.
state (STRING): Description of the user indirect block that was found to be inconsistent.
source (STRING): Location of the failing metadata validation test.

air.repaired.vplus

Severity

NOTICE

Description

This message occurs when an indexed storage tree is rebuilt to repair a metadata inconsistency that was discovered.

Corrective Action

(None).

Syslog Message

AIR vplus rebuild of %s completed for subtype %d

Parameters

fh (STRING): File handle of the storage tree.
subtype (INT): Subtype of the inode encountering the inconsistency.

air.vplus events

air.vplus.certify.issue

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered inside an indexed storage tree. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

AIR vplus certification of %s failed: %s, %s for subtype %d

Parameters

fh (STRING): File handle of the storage tree.
condition (STRING): Specific metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.
subtype (INT): Subtype of the inode encountering the inconsistency.

am events

am.dest events

am.dest.check.failed

Severity

NOTICE

Description

Relocation of aggregates fails at the destination as we no longer accept aggregates from versions 8.2.0 or lower.

Corrective Action

User needs to upgrade to 8.2.1 before attempting ARL to 8.3.0 or higher. `

Syslog Message

Relocation of aggregates failed from node %s to current node as ARL is no longer supported from releases 8.2.0 or lower to 8.3.0 or higher.

Parameters

partner_node (STRING): Source of the aggregate migration

api events

api.engine events

api.engine.killed

Severity

EMERGENCY

Description

This event is posted when the ONTAPI® engine is unexpectedly terminated. The ONTAPI APIs cannot be executed until the system is rebooted.

Corrective Action

Reboot the controller. If the problem persists, contact Contact NetApp technical support.

Syslog Message

Error in API Engine. Engine name: %s.

Parameters

engineName (STRING): Name of the execution engine (e.g., "m" or "d").

api.fileio events

api.fileio

Severity

NOTICE

Description

This message occurs after a file I/O error that typically causes a Data ONTAP® API to fail. While processing Data ONTAP API requests, the system might write intermediate results to files. For example, a long running command returning quantities of data might send a batch of data and save remaining data in a file for subsequent delivery. An I/O error occurred during one of these operations.

Corrective Action

If the problem is related to creating a file, use the system's "df" and "df -i" commands to determine whether the root volume is full or all inodes are in use. If so, it might be possible to remove unneeded files to release space or inodes needed for Data ONTAP API operations. If the problem is that an intermediate file is being deleted because of its age, no action is needed. Probably the client that requested the API did not complete the API processing.

Syslog Message

(None).

Parameters

errorDescription (STRING): Description of the I/O error that occurred.
targetDescription (STRING): Description of the file or directory in which the error occurred.
errorCode (INT): Numeric error code.
errorDetail (STRING): Description of the error code.

api.input events

api.input.invalidSchema

Severity

ERROR

Description

This message occurs when an ONTAPI(tm) API receives extra input parameters as part of the API request or when a required input parameter is missing in the API request. Most often this is due to a bug in the application that initiates the API request.

Corrective Action

The error is due to strict schema validation. You can turn off the input schema validation by using the following CLI commands: $priv set advanced $registry set state.api.schema_input_validate.enable off

Syslog Message

Error in API input schema validation. API name: %s. Detailed error: %s.

Parameters

apiName (STRING): Name of the ONTAPI API in which something invalid was detected.
detailInfo (STRING): Description of the error in the API input, such as an extra input value or a missing input value.

api.output events

api.output.invalid

Severity

NOTICE

Description

This message occurs when An invalid character was detected while checking the output for a Data ONTAP® API. All Data ONTAP API output must be valid UTF-8 characters. From time to time invalid output is detected. Most often this is due to hardware errors, for example, a disk-list-info API might query a disk drive for its serial number but receive invalid data from a malfunctioning drive.

Corrective Action

Examine the information in detailInfo to see if it pinpoints defective hardware. If an API name is provided, that API can be executed to determine which field in the API output is being given invalid data.

Syslog Message

(None).

Parameters

detailInfo (STRING): Information regarding the circumstances in which the error was detected, for example, the API name and/or the piece of hardware that provided invalid data.
invalidValue (INTHEX): The character in the string that was invalid, printed as a hexadecimal number.

api.output.invalidSchema

Severity

ERROR

Description

This message occurs when an ONTAPI(tm) API generates output that violates the declared schema of the API. Most often this is due to a bug in the API handler.

Corrective Action

The error is due to strict schema validation. You can turn off the output schema validation by using the following CLI commands: $priv set advanced $registry set state.api.schema_output_validate.enable off

Syslog Message

Error in API output schema validation. API name: %s. Detailed error: %s.

Parameters

apiName (STRING): Name of the ONTAPI API in which something invalid was detected.
detailInfo (STRING): Description of the error in the API output, such as an extra output value or a missing output value.

app events

app.cg events

app.cg.snap.smbc.lookup.fail

Severity

ERROR

Description

This message occurs when a consistency group on either side of a SnapMirror® active sync relationship cannot be resolved to the remote consistency group for correctly replicating consistency group snapshots.

Corrective Action

Use the "volume snapshot show" command on the destination cluster to view the consistency group snapshot and "volume snapshot restore" (In ASA r2, available at privilege:diagnostic) for restoring each individual volume instead of the consistency group REST interface.

Syslog Message

Failed to resolve snapshot "%s" in consistency group "%s" on SVM "%s" to the remote consistency group. Error: "%s".

Parameters

snapshot_name (STRING): Name of the consistency group's snapshot.
consistency_group (STRING): Name of the consistency group.
vserver (STRING): Name of the storage virtual machine (SVM).
error (STRING): Error that was encountered while resolving the local consistency group to its corresponding remote consistency group.

app.log events

app.log.alert

Severity

ALERT

Description

This event is issued when an application is in a condition that should be corrected immediately.

Corrective Action

(None).

Syslog Message

%s: %s %s: (%u) %s: %s

Parameters

computerName (STRING): Client Computer connected to the Filer.
eventSource (STRING): Client application that generated this event.
appVersion (STRING): Client application version.
eventID (INT): Application eventID.

category (STRING): Event category.
subject (STRING): Event description.

app.log.emerg

Severity

EMERGENCY

Description

This message occurs when an application encounters a fatal error and requires immediate attention.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s: %s %s: (%u) %s: %s

Parameters

computerName (STRING): Client Computer connected to the Filer.
eventSource (STRING): Client application that generated this event.
appVersion (STRING): Client application version.
eventID (INT): Application eventID.
category (STRING): Event category.
subject (STRING): Event description.

app.log.err

Severity

ERROR

Description

This event is issued when an application encounters an error condition.

Corrective Action

(None).

Syslog Message

%s: %s %s: (%u) %s: %s

Parameters

computerName (STRING): Client Computer connected to the Filer.
eventSource (STRING): Client application that generated this event.
appVersion (STRING): Client application version.
eventID (INT): Application eventID.
category (STRING): Event category.
subject (STRING): Event description.

app.log.info

Severity

INFORMATIONAL

Description

This event is issued when an application's message is meant for informational purposes.

Corrective Action

(None).

Syslog Message

%s: %s %s: (%u) %s: %s

Parameters

computerName (STRING): Client Computer connected to the Filer.
eventSource (STRING): Client application that generated this event.
appVersion (STRING): Client application version.
eventID (INT): Application eventID.
category (STRING): Event category.
subject (STRING): Event description.

app.log.notice

Severity

NOTICE

Description

This event is issued when an application is notifing of a certain event.

Corrective Action

(None).

Syslog Message

%s: %s %s: (%u) %s: %s

Parameters

computerName (STRING): Client Computer connected to the Filer.
eventSource (STRING): Client application that generated this event.
appVersion (STRING): Client application version.
eventID (INT): Application eventID.
category (STRING): Event category.
subject (STRING): Event description.

app.temp events

app.temp.delete.s3bucket.fail

Severity

ERROR

Description

This message occurs when a S3 Bucket cannot be deleted as a part of an application destroy operation.

Corrective Action

Use the "object-store-server bucket delete" command to delete the S3 bucket manually. Retry the "application destroy" command on the specified application.

Syslog Message

Failed to delete S3 Bucket %s of application %s on Vserver %s. Error %s.

Parameters

s3bucket (STRING): Name of the S3 Bucket.
application_name (STRING): Name of the application that contains this S3 bucket.
vserver (STRING): Name of the Vserver.
error (STRING): The error that the application destroy service encountered while destroying the S3 bucket.

app.temp.destroy.flexcache.fail

Severity

ERROR

Description

This message occurs when a flexcache cannot be destroyed as a part of an application destroy operation.

Corrective Action

Use the "volume offline" command to take the flexcache offline, and then use the "flexcache delete" command to delete the flexcache manually. Retry the "application destroy" command on the specified application.

Syslog Message

Failed to destroy flexcache %s of application %s on Vserver %s. Error %s.

Parameters

flexcache (STRING): Name of the flexcache.
application_name (STRING): Name of the application that contains this volume.
vserver (STRING): Name of the Vserver.
error (STRING): The error that the application destroy service encountered while destroying the flexcache.

app.temp.destroy.volume.fail

Severity

ERROR

Description

This message occurs when a volume cannot be destroyed as a part of an application destroy operation.

Corrective Action

Use the "volume offline" command to take the volume offline, and then use the "volume delete" command to delete the volume manually. Retry the "application destroy" command on the specified application.

Syslog Message

Failed to destroy volume %s of application %s on Vserver %s. Error %s.

Parameters

> **volume** (STRING): Name of the volume.
> **application_name** (STRING): Name of the application that contains this volume.
> **vserver** (STRING): Name of the Vserver.
> **error** (STRING): The error that the application destroy service encountered while destroying the volume.

app.temp.mcc.sb.modify.abort

Severity

> ERROR

Description

> This message occurs on MetroCluster(tm) systems, as part of a failed "application modify" command. For this to happen, the primary site must be in the midst of modifying application provisioning when an unplanned MetroCluster switchover occurs. The secondary site must then successfully modify the same application. During MetroCluster switchback, the state of the original application provisioning job is checked before allowing the originally issued "application modify" command from the primary site to continue. If the state of the application has changed due to it being modified by the secondary site during switchover, the original "application modify" command is canceled during switchback. This is to prevent possible corruption to the application provisioning modifications from the secondary site.

Corrective Action

> Verify that the changes made by the MetroCluster secondary site are acceptable by using the "application show" command. If the changes are acceptable, no further action is required. Otherwise, rerun the "application modify" command as necessary.

Syslog Message

> Failed to modify application %s on Vserver %s.

Parameters

> **app_name** (STRING): Name of the application being modified.
> **vserver** (STRING): Name of the Vserver.

app.temp.mcc.veto.fail

Severity

> ERROR

Description

> This message occurs when a metrocluster switchover or switchback command fails due to unfinished application jobs running on the node.

Corrective Action

> Run the "job show -category APS" command to first verify that there are no application provisioning jobs running. Then Retry the metrocluster switchover or switchback command.

Syslog Message

> A metrocluster switchover or switchback command was vetoed due to application provisioning jobs still in progress: %s.

Parameters

error (STRING): Error returned by Metrocluster application provisioning.

app.temp.remove.app.fail

Severity

ERROR

Description

This message occurs when an application cannot be removed from the persistent database during an "application destroy" operation.

Corrective Action

Retry the "application destroy" command. Contact NetApp technical support if the failure persists.

Syslog Message

Failed to remove application %s on Vserver %s from the persistent database. Error %s.

Parameters

application_name (STRING): Name of the application.
vserver_name (STRING): Name of the Vserver.
error (STRING): The error that the application destroy service encountered while removing the application from the persistent database.

application events

application.volume events

application.volume.removed

Severity

ERROR

Description

This message occurs when an application is destroyed, but a member volume was not deleted after an error was encountered. This volume is no longer associated with the application and must be deleted manually.

Corrective Action

Delete the volume using the "volume delete" command. For ASA r2, contact NetApp technical support for assistance to resolve this internal error.

Syslog Message

Fails to destroy member volume %s in storage virtual machine %s during an application destroy operation. The volume must be deleted manually. The volume was previously associated with an application with UUID %s.

Parameters

volumeName (STRING): Name of the volume.
vserver (STRING): Storage virtual machine (SVM) containing the volume.
applicationUUID (STRING): Universal unique identifier (UUID) of the application.

arl events

arl.abort events

arl.abort.raid

Severity

ERROR

Description

This message occurs when a relocation of an aggregate is canceled due to activity in RAID.

Corrective Action

Reissue the "storage aggregate relocation start" command to initiate relocation of an aggregate to the specified destination node after the pending or in-progress operation on the aggregate is complete.

Syslog Message

Aggregate %s%s is %s; canceling 'storage aggregate relocation start' operation.

Parameters

owner (STRING): String indicating the owner of the affected aggregate.
vol (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing the aggregate relocation operation.

arl.aggrdesttimeout events

arl.aggrDestTimeout

Severity

NOTICE

Description

This message occurs during an aggregate relocation operation, when the source node does not receive notification from the destination node, within the specified time, that the aggregate is online.

Corrective Action

Use the "storage aggregate show" command to verify that the aggregate and its volumes are online on the destination node.

Syslog Message

Node did not receive notification from the destination in %llu milliseconds that aggregate %s is online after relocation.

Parameters

time (LONGINT): Timeout, in milliseconds, for notification from the destination node that an aggregate is online after relocation.
aggrName (STRING): Name of the aggregate that was relocated.

arl.aggronlinefailed events

arl.aggrOnlineFailed

Severity

EMERGENCY

Description

This message occurs when the RAID or WAFL® subsystem fails to bring online the aggregate or its containing volumes after relocation.

Corrective Action

Check the EMS logs for messages from the RAID and WAFL subsystems to determine the exact cause of the failure and the corrective action.

Syslog Message

Bringing online of aggregate %s or its volumes failed after relocation with error %d.

Parameters

aggrName (STRING): Name of the aggregate that was relocated.
error (INT): Error that occurred while bringing online the aggregate or its volumes after relocation.

arl.aggronlinetimeout events

arl.aggrOnlineTimeout

Severity

ALERT

Description

This message occurs when a node fails to bring online the aggregate and its containing volumes within the specified time after relocation.

Corrective Action

Use the "storage aggregate show" command to verify that the aggregate and its volumes are online.

Syslog Message

Node did not bring online the aggregate %s and its volumes after relocation for %llu milliseconds.

Parameters

aggrUUID (STRING): UUID of the aggregate that was relocated.
time (LONGINT): Timeout, in milliseconds, to bring online the aggregate and its volumes after relocation.

arl.aggrstart events

arl.aggrStart

Severity

NOTICE

Description

This message occurs when relocation of a storage failover aggregate starts.

Corrective Action

(None).

Syslog Message

Starting relocation of aggregate %s at time %llu.

Parameters

aggrName (STRING): Name of the aggregate being relocated.
time (LONGINT): Time at which relocation of the aggregate started.
aggrUUID (STRING): UUID of the aggregate being relocated.

arl.connecttodestfailed events

arl.connectToDestFailed

Severity

ALERT

Description

This message occurs when the local node cannot connect over the cluster network to the d-blade of the destination node while relocating an aggregate.

Corrective Action

1. Verify that the destination node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local node and the destination node are both up. 3. Retry the aggregate relocation command.

Syslog Message

Failed to connect with the destination node %s (d-blade ID: %s) over the cluster network while relocating aggregate %s.

Parameters

destName (STRING): Name of the destination node.
destDbladeid (STRING): D-blade ID of the destination node.
aggrName (STRING): Name of the aggregate being relocated.

arl.netra events

arl.netra.ca.check.failed

Severity

ERROR

Description

This message occurs during the relocation of an aggregate, when the destination node cannot reach the object stores.

Corrective Action

Verify that your intercluster LIF is online and functional by using the 'network interface show' command. Also, check network connectivity to the object store server by using the 'ping' command over the destination node intercluster LIF. Additionally, verify that the configuration of your object store has not changed and that login and connectivity information is still accurate by using the 'aggregate object-store config show' command. It is possible to override this error by using the 'override-destination-checks' parameter of the relocation command. For more information or assistance, contact NetApp technical support.

Syslog Message

Relocation of aggregate '%s' (uuid: %s) failed due to %s preventing object store access on the destination node.

Parameters

vol (STRING): Name of the aggregate.
aggr_uuid (STRING): UUID of the aggregate.
reason (STRING): Activity that is preventing the aggregate relocation operation.

arl.netra.ha.dskChkFailed

Severity

ALERT

Description

This message occurs when relocation of an aggregate fails because the destination node cannot see all disks belonging to the aggregate.

Corrective Action

If the destination is the source node's high-availability (HA) partner, identify the missing disks by using the "storage failover show -fields local-missing-disks, partner-missing-disks" command. If the destination is not the source node's HA partner, use the "storage disk show -aggregate" command to list the disks belonging to the aggregate, and then verify that those disks are visible from the destination by using the "storage disk show" command.

Syslog Message

Relocation of aggregate %s failed from node %s because the destination node cannot see all disks belonging to the aggregate.

Parameters

aggr (STRING): Name of the aggregate that was not relocated.
node (STRING): Name of the node that failed the relocation.

arl.netra.lmgr.limit.failed

Severity

ERROR

Description

This message occurs during the relocation of an aggregate, when the destination node fails the lock count limit checks.

Corrective Action

Ensure that the destination node supports the identified lock count limits, or select a different destination node and retry the operation.

Syslog Message

Aggregate '%s': Lock limits check failed on destination node. %s

Parameters

vol (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing the aggregate relocation operation.

arl.netra.lmgr.reserve.fail

Severity

ERROR

Description

This message occurs when an aggregate is being relocated, and the partner node fails to reserve lock resources needed for this aggregate.

Corrective Action

Take the appropriate action based on the reason supplied in the logged message: - 'Partner reconstructing locks': Retry the relocation after reconstruction is complete on the partner node. You can check the reconstruction progress by using the 'debug locks reconstruction show' diagnostic privilege command. - 'Partner does not have sufficient lock resources': Free up lock resources on the partner and retry the relocation. You can free lock resources on the partner as client applications using locks are closed for volumes contained on that node. You can also free lock resources by moving volumes with locks from the partner node to a different node in the cluster. - 'Memory allocation failure': The system is running low on memory. Monitor memory statistics on the node and retry the relocation when more memory is available. - For other reason messages, or for further assistance, contact NetApp technical support.

Syslog Message

Aggregate '%s': Lock reservation failed. Reason: %s.

Parameters

aggr (STRING): Name of the aggregate being relocated.
reason (STRING): Reason the lock reservation failed.

arl.netra.raid.failed

Severity

ERROR

Description

This message occurs during migration of an aggregate as part of aggregate relocation, when one of the aggregate checks fails on the destination node, which include duplicate aggregate name, duplicate Universally Unique Identifier (UUID), aggregate count, and capacity limits.

Corrective Action

1. If checks fail due to aggregate count or capacity limits, then relocate this aggregate to an alternate destination node that has enough capacity to receive the aggregate. 2. If checks fail due to duplicate aggregate name or UUID, delete the duplicate aggregate created from previous "storage failover

giveback" or "storage aggregate relocation" operations. Contact NetApp technical support for assistance with deletion of the unwanted duplicate aggregate.

Syslog Message

Aggregate '%s' (UUID = %s, type = %s, home_owner_id = %llu, dr_home_owner_id = %llu): RAID aggregate migration checks failed on destination node %s.

Parameters

vol (STRING): Name of the aggregate.
aggregate_uuid (STRING): UUID of the aggregate.
raid_type (STRING): RAID type of the volume.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
dr_home_owner_id (LONGINT): NVRAM system ID of the aggregate's disaster recovery (DR) home owner.
reason (STRING): Activity that is preventing the aggregate relocation or giveback operation.

arl.netra.wafl.mcc.veto

Severity

ERROR

Description

This message occurs during the relocation of an aggregate, when one or more online left-behind disaster recovery(DR) aggregates are found on the destination node and the "node-object-limit" option is set to off.

Corrective Action

Check whether there exists any online left-behind DR aggregates on the destination node from a previous switchover operation. If such an aggregate exists, then perform the corrective actions specified in the earlier EMS messages for the left-behind aggregate to return it to its original owner, and then retry the operation. If you cannot perform the corrective action, then use the "override-destination-checks" option in the "relocation" command to force the relocation.

Syslog Message

Aggregate '%s': One or more online left-behind DR aggregates were found on the destination node and the "node-object-limit" option is set to off.

Parameters

vol (STRING): Name of the aggregate.

arl.opaborted events

arl.OpAborted

Severity

ERROR

Description

This message occurs when an aggregate relocation operation is aborted.

Corrective Action

Refer to other generated error messages to identify the exact cause of failure and the corrective action.

Syslog Message

Aggregate relocation operation aborted by node %s because %s.

Parameters

node (STRING): Name of the node that aborted relocation.
msg (STRING): Error that prevented relocation.

arl.opfinished events

arl.OpFinished

Severity

NOTICE

Description

This message occurs when the aggregate relocation operation from the source node to the specified destination is finished. Use the "storage aggregate relocation show" command to check whether all aggregates were relocated successfully.

Corrective Action

(None).

Syslog Message

Aggregate relocation operation from the source node %s to the destination node %s finished in %llu milliseconds. 'override-vetoes' set to %s, and 'override-destination-checks' set to %s.

Parameters

srcName (STRING): Name of the source node.
destName (STRING): Name of the destination node.
time (LONGINT): Time, in milliseconds, taken to complete the relocation operation.
override_vetoes (STRING): Flag that indicates whether the system should override veto checks for a relocation operation. This flag corresponds to the "-override-vetoes" parameter of the "storage aggregate relocation start" command. When set to true, it might result in the relocation proceeding even if the node detects outstanding issues that would make aggregate relocation dangerous or disruptive.
override_dest_checks (STRING): Flag that indicates whether the system should override checks done on the destination node. This flag corresponds to the "-override-destination-checks" parameter of the "storage aggregate relocation start" command. When set to true, it can be used to force relocation of aggregates even if the destination has outstanding issues. Note that this could make the relocation dangerous or disruptive.

arl.opstart events

arl.OpStart

Severity

NOTICE

Description

This message occurs when the aggregate relocation operation starts. After this message is displayed, aggregates are relocated to the specified destination serially.

Corrective Action

(None).

Syslog Message

Starting relocation to destination %s at time %llu. 'override-vetoes' set to %s, and 'override-destination-checks' set to %s.

Parameters

destName (STRING): Name of the destination node.
time (LONGINT): Time at which relocation started.
override_vetoes (STRING): Flag that indicates whether the system should override veto checks for a relocation operation. This flag corresponds to the "-override-vetoes" parameter of the "storage aggregate relocation start" command. When set to true, it might result in the relocation proceeding even if the node detects outstanding issues that would make aggregate relocation dangerous or disruptive.
override_dest_checks (STRING): Flag that indicates whether the system should override checks done on the destination node. This flag corresponds to the "-override-destination-checks" parameter of the "storage aggregate relocation start" command. When set to true, it can be used to force relocation of aggregates even if the destination has outstanding issues. Note that this could make the relocation dangerous or disruptive.

arl.postmigrnotok events

arl.postMigrNotOk

Severity

ERROR

Description

This message occurs when the specified subsystem encounters an error during the post-migration phase of the aggregate relocation (ARL) operation.

Corrective Action

Check the event log for a subsystem-specific reason as to why the subsystem failed the post-migration phase of the relocation operation. The corrective action is subsystem-specific and is detailed in the corrective action portion of the message. Follow the corrective action specified by that message.

Syslog Message

Relocation of aggregate '%s' encountered an error during post-migration processing. The error was encountered by the subsystem '%s'.

Parameters

aggr (STRING): Name of the aggregate on which the subsystem attempted the relocation operation.
subsystem (STRING): Name of the subsystem that failed the relocation operation.

arl.precmt events

arl.precmt.lmgr.resync.abrt

Severity

NOTICE

Description

This message occurs during aggregate relocation, when automatic lock resynchronization with the node's high-availability (HA) partner for files on this aggregate was aborted.

Corrective Action

(None).

Syslog Message

Automatic lock resynchronization was aborted for aggregate %s on forced relocation.

Parameters

aggr (STRING): Name of the aggregate for which resynchronization was aborted.

arl.precmt.lmgr.resyncing

Severity

ERROR

Description

This message occurs during aggregate relocation, when automatic lock resynchronization with the node's high-availability (HA) partner is in progress for files on this aggregate.

Corrective Action

Retry the relocation after verifying that lock synchronization is complete by using the 'debug locks auto-resync-status -aggregate <aggregate>' diagnostic privilege command. If lock state disruption for all CA locks on the aggregate is acceptable, retry the aggregate relocation with the '-override-vetoes true' option.

Syslog Message

Could not relocate aggregate %s because automatic lock resynchronization was in progress.

Parameters

aggr (STRING): Name of the aggregate with locks not yet in sync.

arl.precmt.lmgr.sync.failed

Severity

ERROR

Description

This message occurs when relocation of an aggregate has started but mirrored lock state cannot be created locally for the relocating aggregate. The relocate operation is aborted.

Corrective Action

Take the appropriate action based on the reason supplied in the logged message: - 'Timed Out': Retry the aggregate relocation with the '-override-destination-checks' option. Overriding the check might result in a longer administrative outage period during which no administrative operations can be performed for volumes on this aggregate. - 'Fatal Error': Contact NetApp technical support.

Syslog Message

Could not relocate the aggregate %s because creating locally mirrored lock state failed.

Parameters

aggr (STRING): Name of the aggregate being relocated.
reason (STRING): Reason the local mirrored lock state creation failed.

arl.precmt.lmgr.sync.forced

Severity

NOTICE

Description

This message occurs during aggregate relocation, when local mirrored lock state creation is allowed to proceed without any time restrictions. This might result in a longer administrative outage period during which no administrative operations can be performed for volumes on this aggregate.

Corrective Action

(None).

Syslog Message

Local mirrored lock state creation for relocating aggregate %s is proceeding without time restrictions.

Parameters

aggr (STRING): Name of the aggregate being relocated.

arl.precmt.repl

Severity

NOTICE

Description

This message occurs when all replication transfers are aborted because of aggregate relocation.

Corrective Action

(None).

Syslog Message

Replication transfers aborted due to aggregate relocation.

Parameters

(None).

arl.precmt.vdom.lowMem

Severity

ERROR

Description

This message occurs when an aggregate relocation fails due to the unavailability of Data ONTAP® memory on the source node.

Corrective Action

Free some memory and retry the aggregate relocation.

Syslog Message

Relocation of aggregate %s failed due to unavailability of Data ONTAP® memory on the source node.

Parameters

aggr (STRING): Name of the aggregate that was not relocated.

arl.precmt.wafl.volconversion

Severity

ERROR

Description

This message occurs when an active volume conversion is running on one or more volumes on the source aggregate. Pre-commit is aborted.

Corrective Action

When volume conversion is complete, re-run the command 'storage aggregate relocation start'.

Syslog Message

Aggregate relocation/takeover is blocked as Volume Conversion is in progress on one of the volumes on aggregate %s.

Parameters

aggregate_name (STRING): The name of the aggregate containing the volume on which conversion is in progress.

arl.subsystemabort events

arl.subsystemAbort

Severity

ERROR

Description

This message occurs when the specified subsystem aborts relocation of the aggregate.

Corrective Action

Check the syslog/EMS output for a subsystem-specific reason for aborting the relocation operation. The corrective action is subsystem-specific and is detailed in the corrective action portion of the message. Follow the corrective action specified by the subsystem and then reissue the 'relocation' command. If you cannot perform the corrective action, then use the 'override-vetoes' option in the 'relocation' command to force the relocation.

Syslog Message

The relocation operation of '%s' was aborted by '%s'.

Parameters

    aggr (STRING): Name of the aggregate on which the subsystem attempted the relocation operation.
    subsystem (STRING): Name of the subsystem that aborted the relocation operation.

arl.veto events

arl.veto.coredump.saveinprog

Severity

    INFORMATIONAL

Description

    This message occurs when the coredump subsystem vetoes the use of storage failover (SFO) during takeover because a coredump save is in progress; cluster failover (CFO) will be used instead. The coredump save must be complete before the system can perform a takeover.

Corrective Action

    (None).

Syslog Message

    Takeover use of SFO vetoed because a coredump save was in progress.

Parameters

    (None).

arl.veto.coredump.unsavedcor

Severity

    ERROR

Description

    This message occurs when aggregate relocation (ARL) is vetoed because there is an unsaved kernel core file on one of the aggregate disks.

Corrective Action

    Use the "node coredump save" command to save any unsaved cores, or use the "-override-vetoes true" option when relocating aggregates.

Syslog Message

    Aggregate relocation vetoed due to an unsaved coredump %s on disk %s ("%s").

Parameters

    corefile (STRING): Name of the kernel core file.
    disk (STRING): Name of the disk containing the kernel core file.
    panic (STRING): Panic string of the unsaved kernel core file that caused the aggregate relocation (ARL) veto.

arl.veto.kmgr.keysmissing

Severity

ERROR

Description

This message occurs when an aggregate relocation fails due to the unavailability of volume encryption keys for the encrypted volumes of the aggregate on the destination node.

Corrective Action

Wait a few minutes, and then try the aggregate relocation again. If the problem persists, run the "security key-manager external restore" command for external key manager, or the "security key-manager onboard sync" command for Onboard Key Manager. The commands retrieve the encryption keys for the encrypted volumes of the aggregate from the key manager. Then try the aggregate relocation again.

Syslog Message

Relocation of aggregate %s failed due to unavailability of volume encryption keys for the encrypted volumes of the aggregate on the destination node %s. Details: %s.

Parameters

aggr (STRING): Name of the aggregate that was not relocated.
node (STRING): Name of the destination node that is missing encryption keys.
details (STRING): Detailed reason for failure.

arl.veto.lmgr.CA.volmove

Severity

ERROR

Description

This message occurs when an aggregate relocation has started but cannot proceed because a volume move to or from this aggregate is in the cutover phase and the volume being moved has continuously available (CA) locks. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in storage failover (SFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

Retry the relocation after volume move exits the cutover phase. To check for volume move state, run the 'volume move show' command.

Syslog Message

Could not complete aggregate relocation because volume move of '%s%s%s%s' is in the cutover phase and this volume has CA locks.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

arl.veto.lmgr.nonCA.broken

Severity

NOTICE

Description

This message occurs when an aggregate relocation is forced that causes non-continuously available (non-CA) locks on the volume to be dropped. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in storage failover (SFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

(None).

Syslog Message

Dropped non-CA locks on volume %s%s%s%s due to forced aggregate relocation of aggregate %s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

arl.veto.lmgr.nonCA.locks

Severity

ERROR

Description

This message occurs when an aggregate relocation has started but cannot proceed because non-continuously available (non-CA) locks are present on the volume. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in storage failover (SFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

Based on how resilient they are to failures, applications must either gracefully close sessions over which non-CA locks are established or accept lock state disruption. To determine the open files that have these sessions established, run the 'vserver cifs session file show -hosting-aggregate "aggregate name" -continuously-available No' command. "aggregate name" is the aggregate for which relocation is being attempted. If lock state disruption for all existing non-CA locks is acceptable, retry the aggregate relocation by using the '-override-vetoes true' option.

Syslog Message

Could not complete aggregate relocation because of non-CA locks on volume %s%s%s%s aggregate %s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.

app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

arl.veto.lmgr.recons.left

Severity

ERROR

Description

This message occurs when an aggregate relocation has started, but cannot proceed because reconstruction of client file locks from mirrored lock information is not yet complete.

Corrective Action

Retry the relocation a few times after checking the status of reconstruction by using the 'debug locks reconstruction show' diagnostic privilege command. If the locks reconstruction operation is not completed, contact NetApp technical support.

Syslog Message

Could not relocate aggregate '%s' because lock reconstruction on node %s is in progress.

Parameters

aggregate (STRING): Name of the aggregate being relocated.
node (STRING): Name of the node reconstructing locks.

arl.veto.lmgr.syncing

Severity

ERROR

Description

This message occurs when an aggregate relocation has started but cannot proceed because synchronization of client file locks ("locks sync") with the partner is not yet complete.

Corrective Action

Retry the relocation after verifying that lock synchronization is complete,by using the 'debug locks lock-sync show' diagnostic privilege command.

Syslog Message

Could not relocate aggregate '%s' because locks sync from node %s to its partner node %s is in progress.

Parameters

aggregate (STRING): Name of the aggregate being relocated.
node (STRING): Name of the node performing locks sync with its partner.
partner (STRING): Name of the partner node with which locks sync is being performed.

arl.veto.repl

Severity

NOTICE

Description

This message occurs when an aggregate relocation is vetoed by a critical replication transfer (for example, volume move in the cutover phase).

Corrective Action

Either abort the replication transfer that is preventing the aggregate relocation from being completed, retry the 'aggregate relocation start' command with the '-override-vetoes true' option, or wait for the transfer to finish.

Syslog Message

Could not complete giveback because a replication transfer with UUID %s involving the aggregate %s is in progress.

Parameters

transferId (STRING): UUID of the SnapMirror® replication transfer that vetoed the aggregate relocation.
aggr (STRING): Name of the aggregate.

arl.veto.snaprestore

Severity

ERROR

Description

This message occurs when the system cannot perform an aggregate relocation because a volume snaprestore operation is active. The relocation is aborted.

Corrective Action

Retry aggregate relocation after the snaprestore operation is finished.

Syslog Message

%s %s%s%s%s is running snaprestore. Canceling aggregate relocation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

arl.veto.volmove

Severity

ERROR

Description

This message occurs when an active volume move operation that cannot be automatically aborted prevents aggregate relocation from starting. When the volume move operation is completed, aggregate relocation can be retried using the 'storage aggregate relocation start' command.

Corrective Action

When the volume move operation is complete, reissue the 'storage aggregate relocation start' command. To abort the volume move immediately, include the '-override-vetoes true' command option.

Syslog Message

Unable to relocate aggregate while volume move for volume (DSID: %llu, NAME: %s) on aggregate %s is in progress.

Parameters

volume_dsid (LONGINT): Source/destination volume Data Set ID (DSID).
vol_name (STRING): The name of the volume.
aggr_name (STRING): The name of the containing aggregate.

arl.veto.wafl.volconversion

Severity

ERROR

Description

This message occurs when an active volume conversion against one or more of the volumes on the source aggregate vetoed aggregate relocation.

Corrective Action

When volume conversion is complete, re-run the command 'storage aggregate relocation start'.

Syslog Message

Aggregate relocation is blocked as Volume Conversion is in progress on one of the volumes on aggregate %s.

Parameters

aggregate_name (STRING): The name of the aggregate containing the volume on which conversion is in progress.

arw events

arw.analytics events

arw.analytics.ext.report

Deprecated

This event is created and documented but never used.

Severity

NOTICE

Description

This message occurs when anti-ransomware analytics generates or updates the "suspicious file extensions" report for a volume.

Corrective Action

(None).

Syslog Message

Anti-ransomware file extension analytics has found %s across high entropy data on the volume "%s" in Vserver "%s". Report location: %s.

Parameters

fileExtension (STRING): Previously unseen file extension or suspicious file extension
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
fileExtensionReport (STRING): Link to report run after file extension analysis.

arw.analytics.high.entropy

Deprecated

This event is created and documented but never used.

Severity

ERROR

Description

This message occurs when the number of high entropy data log messages (pertaining to ransomware detection and analysis) that were generated for a volume cross the predefined threshold.

Corrective Action

To correct this issue: 1) Restore data from the last Snapshot copy that were saved before high entropy data was detected. 2) Refer to the anti-ransomware documentation to learn how to implement ransomware protection and mitigation strategies.

Syslog Message

A large amount of high entropy data was found on volume "%s" in Vserver "%s".

Parameters

> **volumeName** (STRING): Name of the volume.
> **vserverName** (STRING): Name of the Vserver.

arw.analytics.probability

Deprecated

> This event is created and documented but never used.

Severity

> ERROR

Description

> This message occurs when an anti-ransomware attack probability has changed from "low" to "high" on a volume.

Corrective Action

> To correct this issue: 1) Restore to the last safe Snapshot copy before attack probabilty became high. 2) Refer to the anti-ransomware documentation to diagnose further and take remedial measures.

Syslog Message

> Anti-ransomware attack probability changed from low to high on volume "%s" in Vserver "%s".

Parameters

> **volumeName** (STRING): Name of the volume.
> **vserverName** (STRING): Name of the Vserver.

arw.analytics.report

Deprecated

> This event is created and documented but never used.

Severity

> NOTICE

Description

> This message occurs when an anti-ransomware analytics report is generated or updated for a volume.

Corrective Action

> (None).

Syslog Message

> Anti-ransomware analytics report has been generated for volume %s of Vserver %s. The report is available at %s.

Parameters

> **volumeName** (STRING): Name of the volume.
> **vserverName** (STRING): Name of the Vserver.
> **report_path** (STRING): Path to anti-ransomware report.

arw.analytics.suspects

Deprecated

This event is created and documented but never used.

Severity

ERROR

Description

This message occurs when a list of suspects generated by anti-ransomware analytics grows to a point where further investigation is needed.

Corrective Action

(None).

Syslog Message

Anti-ransomware analytics on volume "%s" in Vserver "%s" has outstanding suspect files.

Parameters

volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

arw.auto events

arw.auto.switch.enabled

Severity

NOTICE

Description

This message occurs when anti-ransomware has been automatically switched from learning mode to enabled after various conditions have been satisfied, such as learning period, file creation, file write, and file extension discovery activities.

Corrective Action

(None).

Syslog Message

Anti-ransomware has been automatically switched from learning mode to enabled on volume "%s" in SVM "%s".

Parameters

VolumeName (STRING): Name of the volume.
VserverName (STRING): Name of the SVM.
LearningPeriod (INT): Number of days needed for learning.
IncomingWrite (INT): Amount of write (in MB) received during Learning mode.
DurationWithoutNewExtension (INT): Number of days without a new file extension being discovered.
FileCount (INT): Number of new files created in a volume.
FileExtensionCount (INT): Number of new file extensions discovered in a volume.

arw.new events

arw.new.file.extn.seen

Severity

NOTICE

Description

This message occurs when a new file extension is observed in anti-ransomware enabled volume. Its purpose is to promptly notify about the extension seen and enabling timely investigation.

Corrective Action

(None).

Syslog Message

A new file-extension "%s" is observed on volume "%s" (UUID: "%s") in SVM "%s" (UUID: "%s") at "%s".

Parameters

fileExtension (STRING): Name of the File-Extension seen.
volumeName (STRING): Name of the volume.
volumeUuid (STRING): UUID of the Volume.
vserverName (STRING): Name of the SVM.
vserverUuid (STRING): UUID of the SVM.
time (STRING): Time when new extension is seen.

arw.snapshot events

arw.snapshot.created

Severity

NOTICE

Description

This message occurs when a new ARP snapshot is created in anti-ransomware enabled volume. Additionally, it provides information about the reason behind the creation of the snapshot.

Corrective Action

(None).

Syslog Message

ARP snapshot created on volume "%s" (UUID: "%s") in SVM "%s" (UUID: "%s") at "%s". Reason: "%s".

Parameters

volumeName (STRING): Name of the volume.
volumeUuid (STRING): UUID of the Volume.
vserverName (STRING): Name of the SVM.
vserverUuid (STRING): UUID of the SVM.
time (STRING): Time when new ARP snapshot is created.
reason (STRING): Reason for snapshot creation.

arw.volume events

arw.volume.state

Severity

NOTICE

Description

This message occurs when the anti-ransomware state of a volume is changed.

Corrective Action

(None).

Syslog Message

Anti-ransomware state was changed to "%s" on volume "%s" (UUID: "%s") in Vserver "%s" (UUID: "%s").

Parameters

op (STRING): Monitoring state (enabled, disabled, dry-run).
volumeName (STRING): Name of the volume.
volumeUuid (STRING): UUID of the volume.
vserverName (STRING): Name of the Vserver.
vserverUuid (STRING): UUID of the Vserver.

arw.vserver events

arw.vserver.state

Severity

NOTICE

Description

This message occurs when the anti-ransomware state of a Vserver is changed.

Corrective Action

(None).

Syslog Message

Anti-ransomware was changed to "%s" on Vserver "%s" (UUID: "%s").

Parameters

op (STRING): Anti-ransomware state (enabled, disabled,or dry-run).
vserverName (STRING): Name of the Vserver.
vserverUuid (STRING): UUID of the Vserver.

asa events

asa.personality events

asa.personality.enable.end

Severity

NOTICE

Description

This message occurs when the cluster personality has been changed to an All SAN Array.

Corrective Action

(None).

Syslog Message

The cluster personality is now an All SAN Array.

Parameters

job_id (LONGINT): ID of the conversion job.

asa.personality.enable.fail

Severity

ERROR

Description

This message occurs when the job to change the cluster personality to an All SAN Array has failed.

Corrective Action

Attempt the failed command again. If the problem persists, contact NetApp technical support.

Syslog Message

The cluster personality was not changed to an All SAN Array. For more information, use the command "job show -id %llu" to see the job details.

Parameters

job_id (LONGINT): ID of the conversion job.

asa.personality.enable.start

Severity

NOTICE

Description

This message occurs when the cluster personality is being changed to All SAN Array.

Corrective Action

(None).

Syslog Message

The cluster personality is changing to All SAN Array.

Parameters

job_id (LONGINT): ID of the conversion job.

asup events

asup.aods events

asup.aods.response.overLimit

Severity

ERROR

Description

This message occurs when the size of the response from the AutoSupport OnDemand Server (AODS) goes over the AOD response buffer size limit in ONTAP.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

AutoSupport OnDemand Server (AODS) response went over the response buffer size limit in ONTAP. Size limit: %u bytes.

Parameters

SizeLimit (INT): AOD response buffer size limit in bytes.

asup.aods.response.timeOut

Severity

ERROR

Description

This message occurs when a response is not received from the AutoSupport OnDemand Server (AODS) before the system time limit.

Corrective Action

Check AOD Server connectivity using the "autosupport check show-details -check-type ondemand-server" command. If the issue persists, contact NetApp technical support.

Syslog Message

AutoSupport OnDemand Server (AODS) response was not received before the %u second time limit.

Parameters

TimeLimit (INT): System AODS response time limit in seconds.

asup.config events

asup.config.minimal.parse

Severity

INFORMATIONAL

Description

This event is issued when we are unable to parse /etc/asup_content.conf

Corrective Action

Either the /etc/asup_content.conf file was corrupt or it may have been accidentally modified, compare the file to the released version of the file and make the appropriate modifications.

Syslog Message

AutoSupport could not parse section %s in /etc/asup_content.conf

Parameters

section (STRING): The section that failed to parse.

asup.config.minimal.unavailable

Severity

ERROR

Description

This event is issued when we are unable to access /etc/asup_content.conf

Corrective Action

Either the /etc/asup_content.conf file does not exist or the permissions don't allow it to be accessed. Verify that the file is in the correct location and that the system has access to it.

Syslog Message

Minimal AutoSupports unavailable. Could not read /etc/asup_content.conf

Parameters

(None).

asup.general events

asup.general.drop

Severity

NOTICE

Description

This message occurs when the system cannot generate an AutoSupport message from a callhome EMS event.

Corrective Action

(None).

Syslog Message

Could not create AutoSupport message (sequence #: %u, ID: %s). %s.

Parameters

sequence (LONGINT): AutoSupport sequence number assigned to the callhome event.
trigger (STRING): AutoSupport callhome EMS event ID.

detail (STRING): Additional details about why an AutoSupport message could not be created for the callhome EMS event.
parameters (STRING): A comma-delimited list of the parameter name and value pairs passed to the callhome EMS event.

asup.general.optout

Severity

NOTICE

Description

This message occurs when an opt-out condition exists to notify you that you can turn off AutoSupport® reporting to NetApp, if desired. To disable AutoSupport reporting to NetApp, run the "system node autosupport modify -support disable" command within 24 hours of system initialization. Enabling AutoSupport can significantly speed problem determination and resolution, should a problem occur on your system.

Corrective Action

(None).

Syslog Message

AutoSupport will be enabled 24 hours after system initialization.

Parameters

(None).

asup.general.queue.deleted

Severity

INFORMATIONAL

Description

This event is issued when all entries have been deleted from the AutoSupport queue and the disk file spool. This should only occur when the autosupport.content option is changed from complete to minimal.

Corrective Action

(None).

Syslog Message

All AutoSupport message queue entries have been deleted.

Parameters

(None).

asup.general.reminder

Severity

INFORMATIONAL

Description

This message occurs when AutoSupport is not configured to send messages to NetApp.

Corrective Action

(None).

Syslog Message

AutoSupport is not configured to send messages to NetApp. Enabling AutoSupport can significantly speed problem determination and resolution should a problem occur on your system. More information about AutoSupport is available at http://support.netapp.com/autosupport/.

Parameters

(None).

asup.post events

asup.post.drop

Severity

ERROR

Description

This message occurs when the AutoSupport® mechanism quits trying to post to the NetApp URL after having retried for the specified number of times.

Corrective Action

Use the "system node autosupport check show-details" command to check for connectivity or certificate errors. If the connectivity check shows no errors and if the problem persists, contact NetApp technical support for further assistance.

Syslog Message

AutoSupport message (%s) was not posted to NetApp. The system will drop the message.

Parameters

subject (STRING): AutoSupport message title.

asup.smtp events

asup.smtp.drop

Severity

ERROR

Description

This message occurs when the AutoSupport® mechanism drops email messages after having retried for the specified times.

Corrective Action

Use the "system node autosupport check show-details" command to check for connectivity errors with the configured mailhost. If the connectivity check shows no errors and if the problem persists, contact NetApp technical support for further assistance.

Syslog Message

AutoSupport mail (%s) was not sent. The system will drop the message.

Parameters

subject (STRING): AutoSupport message title.

asup.smtp.invalid.credential

Severity

ERROR

Description

This message occurs when incorrect credentials are configured for the AutoSupport SMTP mailhost. AutoSupport will not be delivered to the configured email destinations until the credentials are corrected.

Corrective Action

Configure the AutoSupport SMTP mailhost with the correct credentials. Use the "system node autosupport modify -mail-hosts <username@mailhost>" command to update the mailhost configuration.

Syslog Message

AutoSupport SMTP connection to "%s" failed due to invalid credentials.

Parameters

mailhost (STRING): Mailhost name.

asup.smtp.missing.cert

Severity

ERROR

Description

This message occurs when the Root CA certificates to validate the SMTP server certificate is missing in ONTAP. AutoSupport will not be delivered to the configured email destinations until the correct Root CA certificate is installed.

Corrective Action

Install the correct Root CA certificates for the SMTP server using the "security certificate install" command.

Syslog Message

AutoSupport SMTP connection to "%s" failed due to missing Root CA certificate.

Parameters

mailhost (STRING): Mailhost name.

asup.throttle events

asup.throttle.drop

Severity

NOTICE

Description

This message occurs when an AutoSupport message is dropped because it is believed to be spam.

Corrective Action

To disable AutoSupport throttling, run the (privilege: diagnostic) "system node autosupport modify -throttle false -node <node name>" command.

Syslog Message

Too many AutoSupport messages in too short a time, throttling AutoSupport: %s

Parameters

subject (STRING): AutoSupport message title.

async events

async.igroup events

async.igroup.replication.error

Severity

ALERT

Description

This message occurs when an error occurs asynchronously replicating an initiator group.

Corrective Action

To get further details on initiator groups that have replication errors, use the command: "lun igroup show -replication-error !-".

Syslog Message

Asynchronous replication of an initiator group between source Vserver "%s" and peer Vserver "%s" has failed with error "%s".

Parameters

vserver_name (STRING): The name of the source Vserver.
peer_vserver_name (STRING): The name of the replication peer Vserver.
error (STRING): The error that occured.
vserver_uuid (STRING): The UUID of the source Vserver.
peer_vserver_uuid (STRING): The UUID of the replication peer Vserver.
peer_relationship_uuid (STRING): The UUID of the relationship between the source and peer.

asyncdelcli events

asyncdelcli.message events

asyncDelCli.message.finish

Severity

NOTICE

Description

This message occurs when an async-delete job has finished on the specified path.

Corrective Action

(None).

Syslog Message

Async-delete "%s" has finished on inode: %llu in volume (DSID: %llu, MSID: %llu).

Parameters

Job_Id (STRING): Async-delete job ID.
Inode (LONGINT): Inode to be deleted.
volume_dsid (LONGINT): DSID of the volume containing the directory.
volume_msid (LONGINT): MSID of the volume containing the directory.

asyncDelCli.message.start

Severity

NOTICE

Description

This message occurs when an async-delete job starts on the specified path.

Corrective Action

(None).

Syslog Message

Async-delete "%s" has started on inode: %llu in volume (DSID: %llu, MSID: %llu).

Parameters

Job_Id (STRING): Async-delete job ID.
Inode (LONGINT): Inode to be deleted.
volume_dsid (LONGINT): DSID of the volume containing the directory.
volume_msid (LONGINT): MSID of the volume containing the directory.

asyncdelcli.permscheck events

asyncDelCli.permsCheck.fail

Severity

ALERT

Description

This message occurs when an async-delete job fails to delete file/directory due to permission issues.

Corrective Action

Verify that the user has permission to delete the inode.

Syslog Message

Async-delete %s encountered permission failures for user (%s) when deleting inode: %llu in volume (DSID: %llu, MSID: %llu).

Parameters

Job_Id (STRING): Async-delete Job ID.
User_Id (STRING): User Identifier.
Path_Inode (LONGINT): Inode that has permission issues for deletion.
volume_dsid (LONGINT): DSID of the volume containing the directory.
volume_msid (LONGINT): MSID of the volume containing the directory.

asyncdelete events

asyncdelete.cancel events

asyncDelete.cancel.start

Severity

NOTICE

Description

This message occurs when cancellation of async delete jobs is started on a node due to Vserver migrate operation. The administrator will need to restart the jobs after the migration is complete or aborted.

Corrective Action

The administrator will need to restart the cancelled async delete jobs after the migration is complete or aborted. Command to start an async-delete job: "volume file async-delete start -volume <volume-name< -vserver <vserver-name< -path <directory path<".

Syslog Message

Cancellation of async delete jobs was started on node "%s" because of Vserver migration. The administrator will need to restart the jobs after the migration is complete or aborted.

Parameters

Node (STRING): Node where async delete jobs are running.

asyncdelete.message events

asyncDelete.message.fail

Severity

ALERT

Description

This message occurs when an async delete job fails.

Corrective Action

Ensure that all nodes in the cluster are online and healthy, and that all volumes needed for the directory traversal are online. Then retry the operation.

Syslog Message

Async delete job on path %s of volume (MSID: %llu) failed: %s.

Parameters

path (STRING): Path to be deleted.
volume_msid (LONGINT): MSID of the volume containing the directory.
error (STRING): Description of the error that occurred.

asyncDelete.message.start

Severity

NOTICE

Description

This message occurs when an async delete job starts on the path specified.

Corrective Action

(None).

Syslog Message

Async delete job started on path %s of volume (MSID: %llu).

Parameters

path (STRING): Path to be deleted.
volume_msid (LONGINT): MSID of the volume containing the directory.

asyncDelete.message.success

Severity

NOTICE

Description

This message occurs when an async delete job finishes successfully on the specified path.

Corrective Action

(None).

Syslog Message

Async delete job on path %s of volume (MSID: %llu) was completed. Number of files deleted: %llu, Number of directories deleted: %llu. Total number of bytes deleted: %llu.

Parameters

path (STRING): Path to be deleted.
volume_msid (LONGINT): MSID of the volume containing the directory.
file_count (LONGINT): Total number of files deleted.
dir_count (LONGINT): Total number of directories deleted.
deleted_size (LONGINT): Total number of bytes deleted.

ata events

ata.excessive events

ata.excessive.latency

Severity

NOTICE

Description

This message occurs when an I/O request to the ATA driver in ONTAP® Select takes longer than five seconds. This might be an indication of an overloaded or misconfigured back-end storage subsystem.

Corrective Action

If possible, reduce the I/O load on the system. Verify that the device is configured correctly and is functioning correctly.

Syslog Message

Excessive latency on ATA device %s

Parameters

ata_latency_message (STRING): ATA high latency message

ata.timeout events

ata.timeout.failed

Deprecated

Last used 9.2

Severity

NOTICE

Description

This message occurs when an I/O request to the ATA driver times out. This might be indicative of an overloaded back-end storage subsystem. The retries for this I/O operation have been exhausted; the I/O operation has failed and will not be retried.

Corrective Action

(None).

Syslog Message

ATA device timeout (%s).

Parameters

ata_timeout (STRING): Timeout message from the ATA driver.

ata.timeout.retry

Deprecated

This event is no longer used because of misleading text. See new EMS of EMS_cam_timeout_retry. Last used 9.7.

Severity

NOTICE

Description

This message occurs when an I/O request to the ATA driver times out. This might be indicative of an overloaded back-end storage subsystem. The I/O operation will be retried; this message does not indicate failure.

Corrective Action

(None).

Syslog Message

ATA device timeout (%s).

Parameters

ata_timeout (STRING): Timeout message from the ATA driver.

audit events

audit.cap events

audit.cap.staging.event.failure

Severity

NOTICE

Description

This message occurs when the system fails to generate an audit staging event as a part of the Central Access Policy (CAP) evaluation during access checks.

Corrective Action

(None).

Syslog Message

Failed to generate an audit staging event when evaluating CAPs for the Vserver "%s". Reason: "%s".

Parameters

vserverUuidStr (STRING): UUID of the Vserver.
errorStr (STRING): Error encountered.

audit.log events

audit.log.event

Severity

NOTICE

Description

This message occurs when there is an issue during message auditing. The system recovers by itself.

Corrective Action

(None).

Syslog Message

Auditing error (%s) occurred at %s.

Parameters

error (STRING): Error encountered during message auditing.
time (STRING): Time that this error occurred.

audit.log.file.recovered

Severity

NOTICE

Description

This message occurs when the system recovers a previously deleted log file as part of audit log policy.

Corrective Action

(None).

Syslog Message

Recovered previously deleted audit log file "%s".

Parameters

log_name (STRING): Log file name.
recovered_time (STRING): File recovery timestamp.

audit.log.queue.high

Severity

NOTICE

Description

This message occurs when the syslog queue reaches 75% of its maximum size.

Corrective Action

Verify remote server network reachability and processing performance.

Syslog Message

Log queue for destination %s, protocol %s has exceeded 75%% of capacity. Last audit log was sent successfully at %s, number of pending messages: %d.

Parameters

syslog_dest (STRING): Log forwarding destination for which messages are being dropped.
protocol (STRING): Protocol used for syslog destination.
last_sent (STRING): Time that the audit log was last successfully sent to the syslog destination.
pending_msg (INT): Number of pending messages in queue.

audit.log.queue.overflow

Severity

NOTICE

Description

This message occurs when an internal queue overflow causes the audit logging mechanism to drop messages destined for a particular log forwarding destination.

Corrective Action

Verify remote server network reachability and processing performance.

Syslog Message

Log queue overflowed for destination %s, protocol %s. Current drop count: %ld.

Parameters

    syslog_dest (STRING): Log forwarding destination for which messages are being dropped.
    protocol (STRING): Protocol used for syslog destination.
    drop_count (LONGINT): Number of messages dropped since the last drop was reported.

audit.log.queue.recovered

Severity

    NOTICE

Description

    This message occurs when the audit logging queue recovers after earlier message drops, and the current queue is less than 75% full.

Corrective Action

    (None).

Syslog Message

    Log queue recovered for destination %s, protocol %s. Issue start time: %s, end time: %s, total number of drops during this period: %ld.

Parameters

    syslog_dest (STRING): Log forwarding destination for which the queue has recovered.
    protocol (STRING): Protocol used for the syslog destination.
    issue_start_time (STRING): Time that the queue overflowed.
    recovered_time (STRING): Time that the queue recovered.
    drop_count (LONGINT): Total number of drops since the last time the queue overflowed.

audit.log.rotate.size.limit

Severity

    NOTICE

Description

    This message occurs when the system rotates a log file that has reached its size limit.

Corrective Action

    (None).

Syslog Message

    Log file %s has been rotated because size limit %ld was reached.

Parameters

    log_name (STRING): Log file name.
    max_log_size (LONGINT): Maximum log file size.

auditlog events

auditlog.change events

auditlog.change.detected

Severity
ERROR

Description
This message occurs when the system detects that audit log files have been tampered with.

Corrective Action
Contact Contact NetApp technical support. for assistance.

Syslog Message
Audit log file "%s" was tampered with.

Parameters
file_name (STRING): Name of the audit log file which was tampered with.

auto events

auto.cds events

auto.cds.feature.disable.failed

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.11.1 or later, when volume efficiency inactive data compression scan disablement failed on the existing compatible volumes.

Corrective Action

Manually try disabling the inline Volume Efficiency Inactive data compression on the volume using the "volume efficiency inactive-data-compression" command.

Syslog Message

Volume Inactive Data Compression disablement failed on Volume %s of Vserver %s.

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.
reason (STRING): Reason for failure.

auto.cds.feature.disable.success

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.11.1 or later, when volume efficiency inactive data compression scan is disabled on the existing compatible volumes.

Corrective Action

(None).

Syslog Message

Volume Inactive Data Compression disabled on Volume %s of Vserver %s.

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.

auto.policy events

auto.policy.feature.enable

Severity

NOTICE

Description

This message occurs during upgrade to Data ONTAP® 9.3 or later, when we start enabling the "auto" efficiency policy on the existing compatible volumes on All-Flash Optimized nodes in the background.

Corrective Action

(None).

Syslog Message

Volume efficiency features will be enabled on Volumes of All-Flash Optimized nodes in the Cluster.

Parameters

(None).

auto.policy.feature.enable.done

Severity

NOTICE

Description

This message occurs during upgrade to Data ONTAP® 9.3 or later, when we have completed enabling the "auto" efficiency policy on the existing compatible volumes.

Corrective Action

(None).

Syslog Message

Volume efficiency features were enabled on Volumes of All-Flash Optimized nodes in the Cluster.

Parameters

(None).

auto.policy.feature.enable.fail

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.3 or later, when we fail to enable the "auto" efficiency policy on the existing compatible volume on All-Flash Optimized nodes.

Corrective Action

Manually try enabling the inline Volume Efficiency features on the volume using the "volume efficiency modify" command.

Syslog Message

Could not enable Volume Efficiency features for Volume %s of vserver %s.%s

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.
reason (STRING): Reason for failure.

auto.policy.feature.enabled

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.3 or later, when we enable the "auto" efficiency policy on the existing compatible volume on All-Flash Optimized nodes.

Corrective Action

(None).

Syslog Message

Volume Efficiency features enabled on Volume %s of Vserver %s.

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.

auto.update events

auto.update.action

Severity

NOTICE

Description

This message occurs when an action is applied to an automatic update request. This step requires input from the customer or a pre-configured default setting.

Corrective Action

(None).

Syslog Message

Automatic update: Applied the action "%s" to package: %s.

Parameters

action (STRING): Action selected for the automatic update request. Possible actions are "install", "schedule", or "dismiss".
package_description (STRING): Information about the package.
package_id (STRING): Unique identifier for the package.

auto.update.eula.accepted

Severity

NOTICE

Description

This message occurs when the customer has accepted the End User License Agreement (EULA). This is required before the Automatic update feature is enabled.

Corrective Action

(None).

Syslog Message

Automatic update: End User License Agreement accepted by "%s".

Parameters

user (STRING): Name of the user account that accepted the EULA.

auto.update.eula.reset

Severity

NOTICE

Description

This message occurs when the Automatic update feature is disabled and the End User License Agreement (EULA) is no longer considered accepted.

Corrective Action

(None).

Syslog Message

Automatic update: Feature has been disabled by "%s".

Parameters

user (STRING): Name of the user account that disabled the EULA.

auto.update.expired

Severity

NOTICE

Description

This message occurs when an automatic update request has not been acted upon before the request expiration date.

Corrective Action

(None).

Syslog Message

Automatic update: Request expired on %s for package: %s.

Parameters

expired_date_time (STRING): Date and time when the request expired.

package_description (STRING): Information about the package.
package_id (STRING): Unique identifier for the package.

auto.update.failure

Severity

ERROR

Description

This message occurs when an automatic update has failed to complete.

Corrective Action

Fix the issues causing the failure and retry the automatic update. If the issue persists, contact NetApp technical support.

Syslog Message

Automatic update: Failed update for package: %s. Error: %s.

Parameters

package_description (STRING): Information about the package.
error_msg (STRING): String containing details regarding the cause of the failure.
package_id (STRING): Unique identifier for the package.
stage (STRING): Stage at which the update failed.

auto.update.received

Severity

NOTICE

Description

This message occurs when the automatic update information is received from the AutoSupport OnDemand server.

Corrective Action

(None).

Syslog Message

Automatic update: Received update for package: %s.

Parameters

package_description (STRING): Information about the package.
package_id (STRING): Unique identifier for the package.

auto.update.retracted

Severity

NOTICE

Description

This message occurs when an automatic update request has been superseded, retracted or otherwise considered unnecessary.

Corrective Action

(None).

Syslog Message

Automatic update: Request retracted for package: %s.

Parameters

package_description (STRING): Information about the package.
package_id (STRING): Unique identifier for the package.

auto.update.success

Severity

NOTICE

Description

This message occurs when an automatic update has completed successfully.

Corrective Action

(None).

Syslog Message

Automatic update: Successfully updated package: %s.

Parameters

package_description (STRING): Information about the package.
package_id (STRING): Unique identifier for the package.

aws events

aws.dev events

aws.dev.diskFailure

Severity

ERROR

Description

This message occurs when ONTAP® is running as an instance in Amazon Web Services (AWS), and a data disk failure occurs because of an I/O hang. ONTAP marks the disk as broken and marks the data aggregrate as partial or degraded.

Corrective Action

Detach the failed device from the AWS instance.

Syslog Message

Disk failure detected after I/O to device %s hung for %d seconds.

Parameters

dev (STRING): Name of the device.
timeout (INT): Number of seconds the disk is hung.

aws.dev.diskNotUnique

Severity

ERROR

Description

This message occurs when Data ONTAP® is running as an instance in Amazon Web Services (AWS), and the volume being added has a UUID that is already used by the attached volumes. This usually happens when the user creates a Snapshot® copy from a volume, creates the volume from this copy and then tries to attach the volume to the instance.

Corrective Action

Detach the being added duplicate UUID device from the AWS instance.

Syslog Message

The volume #%d(%s) being added has a duplicate UUID which is already used by the attached volume #%d(%s).

Parameters

curr_unit (INT): Unit number of the device which is being attached.
curr_devname (STRING): Name of the device which is being attached.
orig_unit (INT): Unit number of the original device which is being duplicated.
orig_devname (STRING): Name of the original device which is being duplicated.

aws.dev.limitExceeded

Severity

ERROR

Description

This message occurs when Data ONTAP® is running as an instance in Amazon Web Services (AWS), and the volume being added is attached to an unsupported device name. Data ONTAP supports attaching a maximum of 51 Elastic Block Storage (EBS) volumes to a single instance. Supported device names are xvdf-xvdz, xvdaa-xvdaz, and xvdba-xvdbd.

Corrective Action

Detach the unsupported device from the AWS instance.

Syslog Message

The volume being added is attached to an unsupported device name #%d(%s). Data ONTAP supports attaching a maximum of 51 device volumes to a single instance. Supported device names are xvdf-xvdz, xvdaa-xvdaz, and xvdba-xvdbd.

Parameters

unit (INT): Device unit number.
devname (STRING): Device name.

aws.instance events

aws.instance.metadata.fail

Severity

ERROR

Description

This message occurs when instance metadata retrieval fails on a hypervisor hosting an Amazon Web Services (AWS) ONTAP instance. The Instance Metadata Service (IMDS) is not reachable at this time. Failure to retrieve the instance metadata indicates issues with the hypervisor.

Corrective Action

This error indicates an issue with the AWS environment. Contact AWS technical support for further assistance. Stopping and starting the instance can also resolve the issue because the instance will typically be relaunched on a different host.

Syslog Message

IMDS%s request fails to retrieve AWS instance metadata: %s.

Parameters

IMDS_Version (STRING): Metadata request version that generates this event.
metadataType (STRING): Metadata request type that generates this event.

aws.nic events

aws.nic.noTxIntr

Severity

ALERT

Description

This message occurs when Data ONTAP® is running in Amazon Web Services (AWS) and a network interface stops processing packets at the beginning of system boot.

Corrective Action

If the issue persists, reboot the node. If reboot does not help, contact NetApp technical support for troubleshooting assistance.

Syslog Message

No TX interrupt on NIC '%s' for %u seconds.

Parameters

nicName (STRING): Network interface or port name.
secElasped (INT): Seconds elapsed since the last send interrupt.
sigCnt (INT): Number of signals sent to the back-end host OS.
reqPending (INT): Number of outstanding send requests.
reqTotal (INT): Number of total send requests.
respPending (INT): Number of outstanding responses.
respTotal (INT): Number of total responses.
evtBackend (INT): Number of back-end events.
evtFrontend (INT): Number of front-end events.

backup events

backup.abort events

backup.abort.ROOLR

Severity

NOTICE

Description

This event is generated when backup event like dump has been aborted and currently ROOLR (Read Only On Line Replica) is running on the Filer. This event might have been aborted because of user intervention or device like bad tape has encountered backup failure.

Corrective Action

(None).

Syslog Message

The abort event, %s, is just notified.

Parameters

errmsg (STRING): Error Description

backup.abort.STSP

Severity

NOTICE

Description

This event is generated when a backup started by VERITAS NBU STSP Protocol has been aborted. This event might have been aborted because of user intervention or device like bad tape has encountered backup failure.

Corrective Action

(None).

Syslog Message

The abort event, %s, is just notified.

Parameters

errmsg (STRING): Error Description

backup.fail events

backup.fail.giveback

Severity

ERROR

Description

This message occurs during a giveback operation, when there are active dump or restore processes running on cfo aggregates of the partner node.

Corrective Action

Wait for backup operations like dump or restore running on cfo aggregates of the partner node to finish before retrying the giveback operation. To kill the active backup operations and proceed, retry the giveback operation with the -override-vetoes option set to true.

Syslog Message

Backup/restore services: There are active backup/restore sessions on the partner.

Parameters

(None).

backup.fail.logopen

Severity

ERROR

Description

This event is generated when we tried to open up the log file and it failed while opening the file

Corrective Action

Make sure that the log file exists with proper permission and the file is not corrupted.

Syslog Message

Failed to open backup log file: %s

Parameters

log_file_open_err (STRING): The error encountered during log file open

backup.fail.logwrite

Severity

ERROR

Description

This event is generated when we tried to write a log event to the log file and it failed while writing it to the file.

Corrective Action

Make sure that the log file exists with proper permission and the file is not corrupted.

Syslog Message

Failed to write to backup log file: %s

Parameters

log_file_write_err (STRING): The error encountered during log file write

backup.flip events

backup.flip.inodemap

Severity

INFORMATIONAL

Description

This message is generated while flipping inodemap.

Corrective Action

(None).

Syslog Message

Took %u seconds to flip inodemap.

Parameters

time (INT): Time in seconds taken to flip inodemap.

bcomd events

bcomd.fcnvmelifadded events

bcomd.fcNvmeLifAdded

Severity

NOTICE

Description

This message occurs when an FC NVMe (Nonvolatile Memory Express) logical interface (LIF) is added.

Corrective Action

(None).

Syslog Message

LIF %s (on Vserver %s), WWPN %s, was added to node %s, port %s.

Parameters

lifname (STRING): Name of the LIF that was added.
vserver (STRING): Name of the Vserver on which the LIF resides.
wwpn (STRING): WWPN that was added.
node (STRING): Name of the node on which the LIF is hosted.
port (STRING): Name of the port on which the LIF is hosted.

bcomd.fcnvmelifmovefail events

bcomd.fcNvmeLifMoveFail

Severity

EMERGENCY

Description

This message occurs when a LIF move failed and the recovery action to restore the LIF has also failed. Namespaces are no longer accessible through this LIF. The LIF must be recovered manually.

Corrective Action

Contact NetApp technical support.

Syslog Message

Moving FC-NVMe LIF %s of vserver %s from %s:%s to %s:%s failed. Manual recovery required.

Parameters

lif_name (STRING): LIF name.
vserver_uuid (STRING): Vserver Uuid.
src_node (STRING): LIF was moving from this node.
src_port (STRING): LIF was moving from this port.
dest_node (STRING): LIF was moving to this node.
dest_port (STRING): LIF was moving to this port.

bcomd.fcnvmelifremoved events

bcomd.fcNvmeLifRemoved

Severity

NOTICE

Description

This message occurs when an FC NVMe (Nonvolatile Memory Express) logical interface (LIF) is removed.

Corrective Action

(None).

Syslog Message

LIF %s (on Vserver %s), WWPN %s, was removed from node %s, port %s.

Parameters

lifname (STRING): Name of the LIF that was removed.
vserver (STRING): Name of the Vserver on which the LIF resided.
wwpn (STRING): WWPN that was removed.
node (STRING): Name of the node on which the LIF had been hosted.
port (STRING): Name of the port on which the LIF had been hosted.

bcomd.fcplifadded events

bcomd.fcpLifAdded

Severity

NOTICE

Description

This message occurs when a Fibre Channel logical interface (LIF) is added.

Corrective Action

(None).

Syslog Message

LIF %s (on Vserver %s), WWPN %s, was added to node %s, port %s.

Parameters

lifname (STRING): Name of the LIF that was added.
vserver (STRING): Name of the Vserver on which the LIF resides.
wwpn (STRING): WWPN that was added.
node (STRING): Name of the node on which the LIF is hosted.
port (STRING): Name of the port on which the LIF is hosted.

bcomd.fcplifremoved events

bcomd.fcpLifRemoved

Severity

NOTICE

Description

This message occurs when a Fibre Channel logical interface (LIF) is removed.

Corrective Action

(None).

Syslog Message

LIF %s (on Vserver %s), WWPN %s, was removed from node %s, port %s.

Parameters

lifname (STRING): Name of the LIF that was removed.
vserver (STRING): Name of the Vserver on which the LIF resided.
wwpn (STRING): WWPN that was removed.
node (STRING): Name of the node on which the LIF had been hosted.
port (STRING): Name of the port on which the LIF had been hosted.

bcomd.igroup events

bcomd.igroup.auto.delete.fail

Severity

ERROR

Description

This message occurs when an initiator group marked with the delete-on-unmap flag is not automatically deleted when it is no longer part of a LUN mapping relationship.

Corrective Action

Use the "lun igroup delete" command to delete the initiator group manually.

Syslog Message

Failed to delete initiator group %s on Vserver %s: %s

Parameters

igroup (STRING): Name of the initiator group.
vserver (STRING): Name of the Vserver.
error (STRING): The error encountered when deleting the initiator group.

bcomd.lun events

bcomd.lun.update.lost

Severity

ERROR

Description

This message occurs when the SAN Kernel Agent is unable to process a LUN metadata update resulting from a Snapshot® copy restore operation or other LUN event.

Corrective Action

Resolve the error and then reload the indicated Vserver with the command "debug san vserver reload".

Syslog Message

A metadata change notification for a LUN in VServer %s on volume %llu has been lost due to error: %s

Parameters

vserver (STRING): Name of the Vserver.
volume (LONGINT): MSID of the volume.
error (STRING): Error preventing the update from being processed.

bcomd.vdisk events

bcomd.vdisk.repl.failed

Severity

ERROR

Description

This message occurs after a replication failure of a LUN or an NVMe namespace configuration in a MetroCluster™ configuration.

Corrective Action

Use the "metrocluster vserver resync" command to resynchronize the Vserver configuration for the affected Vserver.

Syslog Message

Replication of a LUN or an NVMe namespace configuration failed on Vserver "%s". Reason: %s.

Parameters

vserver (STRING): Name of the Vserver.
error (STRING): Error encountered while replicating the configuration.

bcomd.vdisk.transition

Severity

NOTICE

Description

This message occurs when a user attempts to convert a LUN into an NVMe namespace or vice-versa.

Corrective Action

(None).

Syslog Message

Conversion for "%s", Vserver "%s" to type "%s" completed with status "%s".

Parameters

source_vdisk_path (STRING): Path to the LUN or NVMe namespace to be converted.
vserver (STRING): Name of the Vserver.
destination_vdisk_type (STRING): Destination vdisk type after conversion.
status (STRING): Status of conversion operation.

bcomd.volume events

bcomd.volume.update.lost

Severity

ERROR

Description

This message occurs when the SAN Kernel Agent is unable to process a volume LUN inventory update resulting from a Snapshot® copy restore operation. This might lead to stale LUN map entries in the system, which might have minimal impact and can be cleaned up manually.

Corrective Action

Resolve the error and then delete stale LUN maps with the command "lun mapping delete-stale".

Syslog Message

A volume LUN inventory change notification for SVM %s volume %llu has been lost due to error: %s

Parameters

vserver (STRING): Name of the storage virtual machine (SVM).
volume (LONGINT): MSID of the volume.
error (STRING): Error preventing the update from being processed.

bdfu events

bdfu.selected events

bdfu.selected

Severity

INFORMATIONAL

Description

This message occurs when background disk firmware update selects a disk for firmware download. The disk contents will be copied to a suitable spare, the disk will be removed from the raid group and then firmware will be downloaded to it. After the firmware download is complete, the contents of the disk will be restored.

Corrective Action

(None).

Syslog Message

Disk %s [%s %s %s] S/N [%s] selected for background disk firmware update.

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

block events

block.giveback events

block.giveback.during.aufo

Severity

ALERT

Description

This message occurs during a storage failover (SFO) aggregate giveback, when a SnapMirror® active sync automatic unplanned failover operation is in progress.

Corrective Action

Wait for the operation to finish. If giveback is required immediately, use the "override-veto true" parameter with the giveback command, or retry the operation with the "override-vetoes true" parameter. Note: Using this option might cause an I/O disruption.

Syslog Message

Storage Failover giveback cannot complete for aggregate "%s" because an SnapMirror® active sync automatic unplanned failover is in progress.

Parameters

aggrname (STRING): Name of the aggregate.

boot events

boot.bootmenu events

boot.bootmenu.issue

Severity

EMERGENCY

Description

This message occurs when an error is detected while booting into, or using, the system boot menu.

Corrective Action

Retry the boot. If the problem persists, contact NetApp technical support for assistance in replacing the boot device media.

Syslog Message

Failed to boot the system. Error: %s

Parameters

err_str (STRING): Error string.

boot.shutdown events

boot.shutdown.issue

Severity

ALERT

Description

This message occurs when an error is detected while shutting down the system.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to shutdown the system. Error: %s

Parameters

err_str (STRING): Error string.

boot.varfs events

boot.varfs.backup.issue

Severity

EMERGENCY

Description

This message occurs when an error is detected while trying to back up the /var file system to the boot media or node root volume (mroot).

Corrective Action

Contact NetApp technical support.

Syslog Message

Backup of the /var file system failed (%s)

Parameters

err_str (STRING): Error string.

boot.varfs.backup.success

Severity

NOTICE

Description

This message occurs when a subsequent backup is successful following a failure.

Corrective Action

(None).

Syslog Message

Backup of the /var file system is successful after previous failures.

Parameters

(None).

boot.varfs.repair.partial

Severity

ERROR

Description

This message occurs when the system is unable to restore all missing files detected by a scan of the /var file system during boot.

Corrective Action

Contact NetApp technical support.

Syslog Message

Unable to restore all missing files in /var file system.

Parameters

(None).

boot.varfs.repair.success

Severity

NOTICE

Description

This message occurs when missing files are restored during a scan of the /var file system during boot.

Corrective Action

(None).

Syslog Message

All missing files in /var are restored.

Parameters

(None).

boot.varfs.restore.issue

Severity

ALERT

Description

This message occurs when an error is detected while restoring the /var file system from a shutdown.

Corrective Action

The file system is automatically restored from the boot media. If the problem persists, contact NetApp technical support.

Syslog Message

Failed to restore the /var file system. Error: %s

Parameters

err_str (STRING): Error string.

boot.varfs.restore.success

Severity

NOTICE

Description

This message occurs when, following a failure, a subsequent restore of the /var file system is successful.

Corrective Action

(None).

Syslog Message

Successfully restored the /var file system.

Parameters

(None).

boot.verify events

boot.verify.kmods.disabled

Severity

ALERT

Description

This message occurs when the verification of digitally signed kernel modules has been disabled.

Corrective Action

Contact NetApp technical support immediately.

Syslog Message

The verification of digitally signed kernel modules has been disabled.

Parameters

(None).

boot.verify.kmods.success

Severity

NOTICE

Description

This message occurs when the verification of digitally signed kernel modules succeeds.

Corrective Action

(None).

Syslog Message

The verification of digitally signed kernel modules has completed.

Parameters

(None).

bootfs events

bootfs.env events

bootfs.env.issue

Severity

ERROR

Description

This message occurs when an error is detected while trying to access the environment file stored on the boot device. Environment variables on the system cannot be changed or saved.

Corrective Action

Reformat or replace the boot media. If the problem persists, contact NetApp technical support.

Syslog Message

Environmental variables cannot be accessed or saved on the boot device (%s).

Parameters

err_str (STRING): Error string.

bridge events

bridge.discovered events

bridge.discovered

Severity

INFORMATIONAL

Description

This message occurs when the system discovers an FC-to-SAS bridge.

Corrective Action

(None).

Syslog Message

FC-to-SAS bridge %s [%s %s %s] S/N [%s] was discovered.

Parameters

bridgeName (STRING): Name of the bridge.
bridgeVendor (STRING): Vendor name of the bridge.
bridgeModel (STRING): Model name of the bridge.
bridgeRevision (STRING): Firmware revision of the bridge.
bridgeSerialNum (STRING): Serial number of the bridge.

bridge.duplicate events

bridge.duplicate.ip.address

Severity

ALERT

Description

This message occurs when the system discovers an ATTO FibreBridge using the same IP address as some other device in the network.

Corrective Action

Using the IP and MAC addresses from the alert, attempt to locate the other device in the network, and change one of the IP addresses. If unsuccessful, contact NetApp support for assistance with this issue.

Syslog Message

FC-to-SAS bridge %s [%s] %s %s %s.

Parameters

bridgeName (STRING): Name of the bridge that detected the duplicate IP address.
bridgeSerialNum (STRING): Serial number of the bridge that detected the duplicate address.
duplicateIPAddress (STRING): Duplicate IP address detection message from the bridge log.
duplicateMAC (STRING): Duplicate MAC address detection message from the bridge log.
addlInfo (STRING): Additional information about the alert being generated, if available.

bridge.duplicate.wwn

Severity

ALERT

Description

This message occurs when the system discovers two FC-to-SAS bridges reporting the same WWN.

Corrective Action

Contact NetApp support for assistance with this issue.

Syslog Message

FC-to-SAS bridge %s [%s] and bridge %s [%s] are presenting a duplicate WWN [%s] %s.

Parameters

bridgeName1 (STRING): Name of the first bridge.
bridgeSerialNum1 (STRING): Serial number of the first bridge.
bridgeName2 (STRING): Name of the second bridge.
bridgeSerialNum2 (STRING): Serial number of the secondbridge.
bridgeWWN (STRING): World wide name of the bridges.
addlInfo (STRING): Additional information about the alert being generated, if available.

bridge.removed events

bridge.removed

Severity

INFORMATIONAL

Description

This message occurs when an FC-to-SAS bridge is removed from the system.

Corrective Action

(None).

Syslog Message

FC-to-SAS bridge %s [%s %s %s] S/N [%s] was removed.

Parameters

bridgeName (STRING): Name of the bridge.
bridgeVendor (STRING): Vendor name of the bridge.
bridgeModel (STRING): Model name of the bridge.
bridgeRevision (STRING): Firmware revision of the bridge.
bridgeSerialNum (STRING): Serial number of the bridge.

bridge.sas events

bridge.SAS.invalidTransition

Severity

ERROR

Description

This message occurs when the SAS disk shelves behind an FC-to-SAS bridge are not cabled correctly, indicating an invalid SAS2 to SAS3 transition.

Corrective Action

Follow the defined Fabric-attached or stretch MetroCluster cabling guide.

Syslog Message

An invalid SAS2 to SAS3 transition exists on FC-to-SAS bridge %s S/N [%s]: %s

Parameters

bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeError (STRING): Error string from the FC-to-SAS bridge.

bridge.timestamp events

bridge.timestamp.noSync

Severity

NOTICE

Description

This message occurs when the max number of retries is exceeded when attempting to apply SCSI SET TIMESTAMP command on one or more attached FC-to-SAS bridges. A timestamp that is not in sync does not affect the functional operation of the bridge. The SET TIMESTAMP operation is only used to synchronize timestamps between ONTAP® and the bridge to assist with correlating log events.

Corrective Action

A timestamp operation will always retry in 24 hours. If this notice persists, contact NetApp technical support.

Syslog Message

ONTAP timestamp sync did not complete on FC-to-SAS bridge with S/N: %s WWN: %s.

Parameters

bridgeSerialNum (STRING): Serial number of the bridge.
bridgeWWN (STRING): World Wide Name of the bridge.

bsdsocket events

bsdsocket.queuelimit events

bsdsocket.queueLimit.reached

Severity

ERROR

Description

This message occurs when the number of connection requests for a socket reaches the maximum number. These connection requests include partially completed connections and connections that are ready to be accepted. Network misconfigurations can cause ONTAP servers to slow down on a given TCP port and can be the cause of this message. This event can also be caused by a denial-of-service attack or an overloaded system.

Corrective Action

Try turning off and back on the LIF on which the last connection was received. If the issue remains after correcting any network misconfigurations, contact NetApp technical support.

Syslog Message

Number of connection requests for the socket bound to port %d having the IP address %s has reached the limit of %d connections. The last connection was received on IP address %s. The socket uses %s protocol. This event has occurred %llu times since the last warning.

Parameters

port (INT): Local port bound to the socket.
ipAddress (STRING): IP address of the socket.
limit (INT): Maximum number of connection requests per socket.
childRecvIpAddress (STRING): IP address on which the last connection request was received.
protocol (STRING): Protocol used by the socket.
count (LONGINT): Number of occurrences for this event since the last warning.

bucket events

bucket.soft events

bucket.soft.limit.exceeded

Severity

NOTICE

Description

This message occurs when a bucket exceeds the soft quota limit (block).

Corrective Action

(None).

Syslog Message

Bucket "%s" on volume "%s%s%s" has exceeded the soft block limit and is at %s capacity.

Parameters

whom (STRING): Entity for which this event is generated.
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
capacity (STRING): Capacity percentage.

bucket.soft.limit.normal

Severity

NOTICE

Description

This message occurs when a bucket's soft quota limit (block) returns to normal.

Corrective Action

(None).

Syslog Message

Bucket "%s" on volume "%s%s%s" is below the soft block limit and is at %s capacity.

Parameters

whom (STRING): Entity for which this event is generated.
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
capacity (STRING): Capacity percentage.

cache events

cache.ttl events

cache.ttl.settings.change

Severity

ERROR

Description

This message occurs on the last node during the upgrade to ONTAP® 9.3, if the default TTL values of any of the SecD or NFS export caches are changed.

Corrective Action

Use the "vserver services name-service cache" commands to configure TTL values after the system is fully upgraded to ONTAP 9.3.

Syslog Message

One or more default cache TTL values for SecD and NFS export caches have been changed.

Parameters

(None).

cachemirror events

cachemirror.offline events

cacheMirror.offline

Severity

ERROR

Description

This message occurs when Cache Mirror encounters an error and has to be taken offline. The system functions normally except that takeover and giveback operation times will be negatively affected.

Corrective Action

Reboot the node by performing a planned takeover and giveback. Contact NetApp technical support if the problem persists.

Syslog Message

Cache Mirror was taken offline because of an unrecoverable error. %s.

Parameters

error_reason (STRING): String providing information about why Cache Mirror was taken offline.

callhome events

callhome.aggr events

callhome.aggr.meta.repair

Severity

ERROR

Description

This message occurs after WAFL® Iron (wafliron) detects and repairs corruption in an aggregate metafile. Wafliron is a detection and repair process. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Wafliron might need to be run on other volumes in aggregate or complete aggregate. Check for wafl.iron.cont.corrupt messages in the node's event log to find other corrupt volumes. Run wafliron on all corrupt volumes. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for WAFLIRON AGGREGATE METAFILE REPAIRED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.aggr.offline

Severity

ALERT

Description

This message occurs when an aggregate is inconsistent and is taken offline. The inconsistency might stem from one or more sources and might be related to previous operations or to current operations. Disabling access is a protective measure to ensure that further inconsistencies are avoided. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the operating environment for the system, storage, or associated cabling has changed in terms of temperature, humidity, vibration, unstable electrical power, or other physical factors, gracefully shut down and power off the system until the environment is restored to normal operations. If the operating environment has not changed, identify the source of the inconsistency by checking for previous errors and warnings. Also check for hardware statistics from Fibre Channel, SCSI, disk drives, other communications mechanisms, and previous administrative activities. Another approach is to consult with NetApp technical support (it is recommended that you do so before attempting this step), and then run WAFL® Iron (wafliron) on the aggregate to identify and optionally repair the inconsistency. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for AGGREGATE INCONSISTENT AND TAKEN OFFLINE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.aggr.restricted

Severity

ERROR

Description

This message occurs when a medium error is encountered during a reconstruction. Medium errors during reconstruction automatically invoke wafliron if your system's 'raid.reconstruct.wafliron.enable' option is set to "on". If the option is set to "off", the aggregate is moved offline. In this case, the option was set to "off" and the aggregate was moved offline. The failed disk drive's reconstruction continues and the aggregate stays offline until you repair it. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run wafliron manually to bring this aggregate online. It is recommended that you contact NetApp technical support before attempting this. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for MEDIUM ERROR DURING RECONSTRUCTION (aggregate restricted)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.aggr.wafliron

Severity

ERROR

Description

This message occurs when a medium error is encountered during a reconstruction. Medium errors during reconstruction automatically invoke wafliron if your system's 'raid.reconstruct.wafliron.enable' option is set to "on". If the option is set to "off", the aggregate is moved offline. In this case, the option was set to "on" and the aggregate remains online. The failed disk drive's reconstruction continues and wafliron begins repairing the aggregate. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The corrective process of running wafliron has already begun. Wait until you see a message indicating that the wafliron process is complete and the inconsistency status of the aggregate is cleared. If this doesn't happen, or if you see subsequent error messages, contact NetApp technical support. If you need assistance in bringing the aggregate online, contact NetApp technical support.

Syslog Message

Call home for MEDIUM ERROR DURING RECONSTRUCTION (wafliron started)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.andu events

callhome.andu.completed

Severity

NOTICE

Description

This message occurs when the automated update of the cluster has been completed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.andu.pausederr

Severity

ALERT

Description

This message occurs when the automated update of the cluster has been paused due to an error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The automated update of the cluster has been paused due to an error. Determine the cause of the error by using the "cluster image show-update-progress" command. Correct the cause of the error, and then issue the "cluster image resume-update" command to continue the automated update of the cluster.

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multinode AutoSupport.

callhome.appdm events

callhome.appdm.snaprest.fail

Severity

ALERT

Description

This message occurs when the Application Data Management feature encounters an error while attempting to restore an application from a snapshot. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "application snapshot show -vserver <vserver> -application <app> -protection-group <pg>" command to determine if the snapshot exists. If it does, retry the operation. Contact NetApp technical support for assistance with reviewing the event log to determine the cause of the application snapshot restore failure.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
vserver_name (STRING): Vserver name related to this event.
application_name (STRING): Application name related to this event.
protection_group_name (STRING): Protection group name related to this event.
snapshot_name (STRING): Snapshot name related to this event.

callhome.arw events

callhome.arw.activity.seen

Severity

ALERT

Description

This message occurs when ransomware activity is detected. To protect the data, a snapshot has been created, which can be used to restore the original data. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "security anti-ransomware volume attack generate-report" command to generate the report file of the suspected attack on the volume. Search the knowledge base of the NetApp technical support web site for the "callhome.arw.activity.seen" keyword and refer to ONTAP anti-ransomware documentation to take remedial measures for ransomware activity. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home message for %s, Volume: %s (UUID: %s) in Vserver: %s (UUID: %s)

Parameters

subject (STRING): AutoSupport subject or title for this event.
volName (STRING): Name of the volume.
volUuid (STRING): UUID of the volume.
vserverName (STRING): Name of the Vserver.
vserverUuid (STRING): UUID of the Vserver.

callhome.bad events

callhome.bad.ram

Severity

ERROR

Description

This message occurs when correctable ECC errors are masked off, possibly due to bad or poorly seated memory or a faulty motherboard. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If anyone recently installed memory, try removing and reseating it. If problems persist, replace the memory module. If problems still persist, replace the motherboard. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for POSSIBLE BAD RAM

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.battery events

callhome.battery.failure

Severity

EMERGENCY

Description

This message occurs when the battery is either incapable of maintaining data during a power-outage, or is experiencing a failure that poses a physical threat. To prevent data loss and/or damage, the system will shut down momentarily. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Correct any environmental issues, such as a high ambient temperature. If the condition persists, replace the NVRAM card/battery. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s CRITICAL.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.battery.low

Severity

ALERT

Description

This message occurs when the NVRAM battery capacity is critically low. If your system is configured to do so, it generates and transmits an AutoSupport® (or 'call home') message to NetApp® technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "system node environment sensors show" command to view the battery's current status, capacity, and charging state. If the battery was recently replaced or the system was nonoperational for an extended period of time, monitor the battery to verify that it is charging properly. If the battery run time continues to decrease below critical levels, the storage system will automatically shut down. Contact NetApp technical support for assistance.

Syslog Message

Call home for BATTERY_LOW.

Parameters

subject (STRING): AutoSupport subject or title for this event.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

callhome.battery.notice

Severity

NOTICE

Description

This message occurs when the battery is operating near the limit of its supported environment. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Correct any environmental issues, such as a high ambient temperature. If the condition persists, replace the NVRAM card/battery in the next three months. If you need assistance, contact NetApp technical support.

Call home for %s NOTICE.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.battery.overchg

Severity

ALERT

Description

This message occurs when the NVRAM card lithium battery is overcharged and is at risk of failure. The system is currently serving data but will shut down shortly. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the NVRAM card/battery and start the system back up. The system will not boot with the battery in this state. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for BATTERY OVERCHARGED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.battery.overtemp

Severity

ALERT

Description

This message occurs when the sensor for the NVRAM card lithium battery over the intended temperature limit. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the system is excessively warm, allow it to cool gradually. If the battery temperature is still too high, replace the battery pack. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for BATTERY OVERTEMP

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.battery.warning

Severity

ALERT

Description

This message occurs when the battery is operating outside the limit of its supported environment. Under these conditions, the battery might not be capable of maintaining data during a power-loss event. To prevent data loss, the system will automatically shut down in 24 hours. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Correct any environmental issues, such as a high ambient temperature. If the condition persists, replace the NVRAM card/battery. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s WARNING.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.bcom events

callhome.bcom.vsinit.failed

Severity

ALERT

Description

This message occurs when multiple attempts to initialize the SAN Kernel Agent for a Vserver have failed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "cluster kernel-service show" (advanced) command to verify the cluster kernel quorum service is "in-quorum" on the source node. Contact NetApp technical support for assistance determining the root cause of the failed Vserver initialization.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
source (STRING): The name of the node that failed to initialize.
vserver (STRING): The name of the Vserver that failed to initialize.
vserver_uuid (STRING): The UUID of the Vserver that failed to initialize.
error (STRING): The error of the last failed initialization.

callhome.bdfu events

callhome.bdfu.suspended

Severity

ALERT

Description

This message occurs when drive unlock fails for firmware download on a FIPS-certified NetApp Storage Encryption SAS drive.

Corrective Action

Contact NetApp technical support for assistance with restoring valid authentication keys on the disk.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.bootfs events

callhome.bootfs.chkdsk

Severity

ALERT

Description

This message occurs when a consistency check of the boot media (compact flash or other type) has shown a problem and has not been corrected automatically. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The boot media should be reformatted and/or replaced. After corrective steps have been taken, the "bootfs chkdsk" command should be used to confirm the recovery has been successful. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for BOOTFS CHKDSK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.bridge events

callhome.bridge.reboot.unexp

Severity

ALERT

Description

This message occurs when a bridge reboots unexpectedly. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Analyze the bridge event log to determine the cause of the reboot. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
bridgeName (STRING): Name of the bridge.
bridgeVendor (STRING): Vendor name of the bridge.
bridgeModel (STRING): Model name of the bridge.
bridgeRevision (STRING): Firmware revision of the bridge.
bridgeSerialNum (STRING): Serial number of the bridge.
rebootReason (STRING): Reason for the bridge reboot.

callhome.c events

callhome.c.fan

Severity

ERROR

Description

This message occurs when there is an unexpected decrease in a chassis fan's spin rate, possibly due to a slight decrease in revolutions or to a failed chassis fan. A failed chassis fan can lead to overheating and can cause damage to your equipment. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the chassis fan to determine whether it is spinning. Replace the chassis fan if it failed or is not operating correctly. You might need to replace the motherboard to replace the chassis fan. If a slight decrease in revolutions seems to have caused this event, and if this has not happened often, you do not need to replace the chassis fan. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.c.fan.fru.degraded

Severity

ERROR

Description

This message occurs when a chassis fan might be operating in a degraded state. This condition can lead to overheating and can cause damage to your equipment. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the chassis fan to determine whether it is spinning. Replace the chassis fan if it failed or is not operating correctly. You might need to replace the motherboard to replace the chassis fan. A slight decrease in revolutions might have caused this event. If this seems to be the case and has not happened often, you do not need to replace the chassis fan. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.c.fan.fru.fault

Severity

ERROR

Description

This message occurs when a chassis fan might have failed. This failure can lead to overheating and can cause damage to your equipment. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the chassis fan to determine whether it is spinning. Replace the chassis fan if it failed or is not operating correctly. You might need to replace the motherboard to replace the chassis fan. A slight decrease in revolutions might have caused this event. If this seems to be the case and has not happened often, you do not need to replace the chassis fan. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.c.fan.fru.rm

Severity

ERROR

Description

This message occurs when a chassis fan is removed. You have two minutes to install a replacement chassis fan or the system shuts down automatically to avoid overheating. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Install a replacement chassis fan within two minutes of removing the original to complete the hot-swap. Otherwise, install the replacement chassis fan when you are ready. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.c.fan.fru.shut

Severity

ERROR

Description

This message occurs when multiple chassis fans have failed. This failure can lead to overheating and can cause damage to your equipment. It is sent just before the system shutdown. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the chassis fans to determine whether they are spinning. Replace the chassis fans if any have failed or they are not operating correctly. You might need to replace the motherboard to replace the chassis fans. A slight decrease in revolutions might have caused this event. If this seems to be the case and has not happened often, you do not need to replace the chassis fan. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.carrier events

callhome.carrier.fault

Severity

ERROR

Description

This message occurs when all the disks in the carrier, that contains more than one disk in it, have failed. The carrier should be replaced. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the carrier with the failed disks by looking for the carrier whose amber LED is on and the green LED does not indicate any disk activity. Replace the carrier with the failed disks. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ch events

callhome.ch.ps.degraded

Severity

ERROR

Description

This message occurs when a degraded chassis power supply unit (PSU) state exists. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

You might need to replace a chassis PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ch.ps.fan.bad.xmin

Severity

EMERGENCY

Description

This message occurs when a power supply fan has been detected as no longer working and the overheating is expected shortly. If your system is configured to do so, it generates and transmits an

AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the power supply unit or the power supply unit's fan. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ch.ps.fault

Severity

ERROR

Description

This message occurs when one chassis power supply unit (PSU) fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

You might need to replace a chassis PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ch.ps.wrong.in

Severity

ERROR

Description

This message occurs when a power supply is not connected to the correct type of power source (voltage, amperage, type, etc. difference). If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Connect the power supply to the proper power source or replace the power supply with the appropriate one for the available power source. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis events

callhome.chassis.hitemp

Severity

ERROR

Description

This message occurs when the chassis temperature is too warm and might cause an environmental problem, or when there is faulty hardware in the system, such as a fan failure or a malfunctioning temperature sensor. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CHASSIS OVER TEMPERATURE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.overtemp

Severity

EMERGENCY

Description

This message occurs when the chassis temperature is too hot. It is sent just before system shutdown and indicates a potential environmental problem or faulty hardware in the system, such as a fan failure or a malfunctioning temperature sensor. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If the environment is too hot, shut down and power off your system until the environmental conditions are restored to the normal operating temperature range. If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If

you need assistance, contact NetApp technical support.

Syslog Message

Call home for CHASSIS OVER TEMPERATURE SHUTDOWN

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.power

Severity

ERROR

Description

This message occurs when power is in a degraded state because of bad power supply units (PSUs), bad wall power, or bad components on the motherboard. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If spare PSUs are available, try exchanging them to see whether that alleviates the problem. If not, you might need to replace motherboard components or the motherboard. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.power.down

Severity

ERROR

Description

This message occurs when voltage and other power sensors for the system power show critical values. A power supply unit (PSU) might have failed or the sensors might be malfunctioning. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the faulty hardware. Most likely, you need to replace a PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.degraded

Severity

ERROR

Description

This message occurs when a degraded chassis power supply unit (PSU) state exists. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

You might need to replace a chassis PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.fault

Severity

ERROR

Description

This message occurs when one chassis power supply unit (PSU) fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

You might need to replace a chassis PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.off

Severity

ERROR

Description

This message occurs when the system detects that a chassis power supply unit (PSU) is turned off. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to

NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Turn on the chassis PSU to restore normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.ok

Severity

NOTICE

Description

This message occurs when the system detects that a chassis power supply unit (PSU) was restored to normal operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.replace

Severity

ERROR

Description

This message occurs when a chassis power supply unit (PSU) fails. The PSU's DC power output was abnormal although the AC input power was within acceptable limits. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the affected chassis PSU. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.ps.rm

Severity

ERROR

Description

This message occurs when the system detects that a chassis power supply unit (PSU) was removed. You have two minutes to install a replacement chassis PSU or the system shuts down automatically to avoid overheating. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Install a replacement chassis PSU within two minutes of removing the original to complete the hot-swap. Otherwise, install the replacement chassis PSU when you are ready. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.chassis.undertemp

Severity

EMERGENCY

Description

This message occurs when the chassis temperature is too cold. It is sent just before system shutdown and indicates a potential environmental problem or faulty hardware in the system, such as a fan failure or a malfunctioning temperature sensor. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If the environment is too cold, shut down and power off your system until the environmental conditions are restored to the normal operating temperature range. If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CHASSIS UNDER TEMPERATURE SHUTDOWN

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.checksum events

callhome.checksum

Severity

ALERT

Description

This message occurs when the system detects a RAID level checksum error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CHECKSUM ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.checksum.multiple

Severity

ALERT

Description

This message occurs when the system detects a RAID checksum error involving multiple disk drives. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CHECKSUM ERROR (multiple disks)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.clam events

callhome.clam.node.ooq

Severity

EMERGENCY

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveness, Availability Monitor (CLAM) determines that one of the nodes is out of "cluster quorum".

Corrective Action

One or more of the following actions may be needed: - Check if the node that is out of quorum is administratively down; if it is, enable it with: "cluster modify -node node_name -eligibility true"; - Check if the node that is out of quorum has panic'ed or hung; if it is, troubleshoot and resolve that problem. - Check the connectivity of the node that is out of quorum to the cluster interconnect. Fix any issues, if needed. - Check if there is a version incompatibility between the node that is out of quorum and the rest of the nodes in the cluster; if there is, upgrade nodes as needed so that they are compatible.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.client events

callhome.client.app.alert

Severity

ALERT

Description

This message occurs when a remote client accesses the node using Manage ONTAP® and triggers an event using the ems-autosupport-log API call with "auto-support" field set to "true". If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify and resolve the issue on the remote client that is using the Manage ONTAP API to trigger this event. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.client.app.emerg

Severity

EMERGENCY

Description

This message occurs when a remote client accesses the node using Manage ONTAP® and triggers an event using the ems-autosupport-log API call with "auto-support" field set to "true". If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify and resolve the issue on the remote client that is using the Manage ONTAP API to trigger this event. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.client.app.err

Severity

ERROR

Description

This message occurs when a remote client accesses the node using Manage ONTAP® and triggers an event using the ems-autosupport-log API call with "auto-support" field set to "true". If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify and resolve the issue on the remote client that is using the Manage ONTAP API to trigger this event. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.client.app.info

Severity

NOTICE

Description

This message occurs when a remote client accesses the node using Manage ONTAP® and triggers an event using the ems-autosupport-log API call with "auto-support" field set to "true". If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify and resolve the issue on the remote client that is using the Manage ONTAP API to trigger this event. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.client.app.notice

Severity

NOTICE

Description

This message occurs when a remote client accesses the node using Manage ONTAP® and triggers an event using the ems-autosupport-log API call with "auto-support" field set to "true". If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify and resolve the issue on the remote client that is using the Manage ONTAP API to trigger this event. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.clus events

callhome.clus.net.degraded

Severity

ALERT

Description

This message occurs when the cluster network has experienced an issue that could potentially affect connectivity, reliability, redundancy, or performance, as observed from the local node. A degraded cluster network might cause a cluster-wide outage. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

See the EMS event log for additional information related to the issue. If the event_type is "Frequent Link Flapping", check the network cables that are connected to the specified port for any loose connections. If the event_type is "Large MTU Packet Loss", verify cluster switch MTU settings and ensure that all cluster

network ports are configured with the same MTU. If the event_type is "Total Packet Loss", verify all cluster network connectivity and configuration and ensure that all cluster network ports are reachable from one another. If the event_type is "Cluster LIF Not Assigned to Any Port" and the cluster ports are link "down", check the network cables that are connected to the specified port for any loose connnections. Ensure that the cluster ports are administratively configured link "up". If the cluster ports are link "up", attempt to manually migrate the cluster LIF to another cluster port. If the event_type is "Cluster LIF Administratively Down", use the "network interface modify" command to change the status-admin state of the cluster LIF to "up". If the event_type is "Insufficient L2 Reachability", verify that the network topology is correct and the ports are correctly assigned to the right broadcast domain. If the problem persists after correcting any issues, call NetApp technical support.

Syslog Message

Call home for %s: %s - %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
event_type (STRING): The type of the event that signaled that the cluster network might be operating in a degraded state from the perspective of the local node.
event_details (STRING): Details of the event that signaled that the cluster network might be operating in a degraded state from the perspective of the local node.

callhome.clus.vol.cre.fail

Severity

ERROR

Description

This message occurs when the active volume required to store the system data needed for cluster-wide storage cannot be created. This is typically due to not finding an aggregate with the specified size or mirrored attribute to create the volume. The specified feature cannot function without this volume. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Study the error message and take steps to rectify the problem. For example, if the error message indicates that the volume create failed because the aggregate is offline, use the 'aggr online -aggregate' command to bring it back online. If the error message does not indicate an obvious problem, run the 'aggregate show' command to find the state of the aggregate and 'metrocluster check config-replication show-aggregate-eligibility' command to find the eligibility of aggregates for configuration replication. If the aggregate is full, try to create space on it. Otherwise, if possible, create an aggregate with the specified mirror attribute and size by using the 'aggregate create -aggregate name -diskcount diskcount -disksize size -mirror mirrorattribute' command. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s. Could not create volume after %d attempts for feature %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
AttemptsMade (INT): Count of failed attempts to create the volume.
Feature (STRING): Feature using the cluster-wide storage.
ErrorMessage (STRING): Error message on create failure at time of event generation
Size (STRING): Size of the volume to be created.

Mirror (STRING): Mirrored attribute of the aggregate.

callhome.clus.vol.del.fail

Severity

ERROR

Description

This message occurs when the volumes that were used for cluster-wide storage cannot be deleted. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Study the error message and take steps to rectify the problem. For example, if the error message indicates that the volume delete failed because the aggregate is offline, use the 'aggr online -aggregate aggregate_name' command to bring it back online. If the error message does not indicate an obvious problem, contact NetApp technical support

Syslog Message

Call home for %s. Could not delete volumes "%s" and "%s" for feature %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
ActiveVolume (STRING): Active volume name.
StandbyVolume (STRING): Standby volume name.
Feature (STRING): Feature using the cluster-wide storage.

callhome.config events

callhome.config

Severity

ALERT

Description

This message occurs when the system detects a disk shelf configuration error for one or more disk shelves. The system continues to report this error until you resolve the problem. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the command "storage errors show" to display outstanding storage errors in the system. Use the "event log show" command to identify earlier EMS messages related to shelf configuration errors. Correct the cause of the configuration error. Common causes of configuration errors are as follows: - A previously attached disk shelf was removed - A loss of disk shelf enclosure services occurred - A disk shelf fan module failed - An invalid disk shelf drive configuration was created - An operating environment temperature was 50C (122F) degrees or higher - A disk shelf environment module failure occurred If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONFIGURATION_ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.coredump events

callhome.coredump.save.done

Severity

NOTICE

Description

This message occurs when all the core segments belonging to a coredump have been saved. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "system node coredump show" command to obtain coredump file details.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
file (STRING): Primary core segment file that was created.
node (STRING): Name of the node whose core was saved.
size (LONGINT): Size of primary core segment in bytes.
chksum (STRING): Checksum of primary core segment file's data.
ancillary_segment_directory (STRING): Directory which holds ancillary core segments.
ancillary_segments (STRING): List of ancillary segments.

callhome.corefile events

callhome.corefile.upload

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for corefile upload. This Autosupport collects and sends only the corefile specified as part of the payload. This autosupport is sent only when the transport is set to http or https. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

corefile upload callhome for %s

Parameters

subject (STRING): AutoSupport message subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport message should be generated and delivered even if the AutoSupport configuration is disabled. If "0" then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this coredump AutoSupport message.
core_filename (STRING): Coredump filename to be included in the coredump AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport message via AutoSupport OnDemand.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.cpu events

callhome.cpu.fan

Severity

ERROR

Description

This message occurs when a CPU fan failed or the fan is spinning too slowly or too fast. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Analyze whether you need to replace the CPU fan. CPU fan replacement might require that you replace the motherboard as well. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.cpu.fan.fault

Severity

ERROR

Description

This message occurs when a CPU fan failed or the fan is spinning too slowly or too fast. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Analyze whether you need to replace the CPU fan. CPU fan replacement might require that you replace the motherboard as well. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.css events

callhome.css.toc.repair

Severity

ALERT

Description

This message occurs when an inconsistency is discovered in a metadata record of the Cloud Storage Service (CSS). The inconsistency is automatically repaired immediately upon detection. But it can leave behind lost objects that are no longer pointed to by the namespace. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The (privilege: diag) "object-store-server lost-object-recovery start" command can be used to add lost objects back into the namespace. The progress of this operation can be monitored with the "object-store-server lost-object-recovery show" command. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ctran events

callhome.ctran.gcror.timeout

Severity

ALERT

Description

This message occurs when the Kernel Cluster Services (KCS) / Cluster Transaction Manager (CTRAN) detects that one or more newly selected Group Coordinators (GCs) are taking too long to successfully complete the GC Ready on Reselect procedure. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for GROUP COORDINATOR ROR TIMEOUT.

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.ctran.jpc.splitbrain

Severity

ALERT

Description

This message occurs when the Kernel Cluster Services (KCS) / Cluster Transaction Manager (CTRAN) detects that there is a disagreement in the cluster - a split brain - about which node has the Join Proposal Coordinator (JPC). If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for CTRAN JPC SPLIT BRAIN DETECTED.

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.ctran.proposal.stuck

Severity

ALERT

Description

This message occurs when the Kernel Cluster Services (KCS) / Cluster Transaction Manager (CTRAN) detects that the proposal is stuck. Proposal is the transaction between nodes in a cluster. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node ASUP.

callhome.dafs events

callhome.dafs.nic.stop

Severity

ALERT

Description

This message occurs when the DAFS (Direct Acess File System) NIC (Network Interface Controller) has stopped while DAFS was running. This is caused by a failure of the NIC processor firmware during heavy and complex workloads. DAFS can usually recover and continue. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Reboot the system to recover the NIC. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DAFS VI NIC HALTED - DAFS SERVICE MAY BE INACCESSIBLE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dbs events

callhome.dbs.assign.error

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) assignments reports a validation error. An assignment validation error may indicate that data is inaccessible or data loss has occurred. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Call home for %s, event %s, type %s, service %u, node %u/%s, drive %u/%s, eventID %u.

Parameters

subject (STRING): AutoSupport subject or title for this event.
evtMessage (STRING): Description of the data event, including context details.
evtType (STRING): Type of the original DBS event.
serviceID (INT): Service ID that identifies the associated DBS service. It will be "0" if there is no associated service.
nodeID (INT): Node ID number of the associated node. It will be 0 if there is no associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
driveID (INT): Drive ID number of the associated drive. It will be 0 if there is no associated drive.
driveUuid (STRING): Drive UUID of the associated drive. It will be zeroes if there is no associated drive.
evtID (INT): DBS event ID number.
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
evtDetails (STRING): Specific details of the DBS data event. It may be a string, in JSON format, or empty.

callhome.dbs.block.repair

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) attempts a new block repair or fails to repair block in maximum number of repair attempts allowed. See event details for more information. The DBS is responsible for managing the data that backs the FlexVols®. Multiple DBS events that indicate inconsistent data are mapped to this one event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for help immediately.

Syslog Message

Call home for %s, event %s, type %s, service %u, node %u/%s, drive %u/%s, eventID %u.

Parameters

subject (STRING): AutoSupport subject or title for this event.
evtMessage (STRING): Description of the data event, including context details.
evtType (STRING): Type of the original DBS event.
serviceID (INT): Service ID that identifies the associated DBS service. It will be "0" if there is no associated service.
nodeID (INT): Node ID number of the associated node. It will be 0 if there is no associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
driveID (INT): Drive ID number of the associated drive. It will be 0 if there is no associated drive.
driveUuid (STRING): Drive UUID of the associated drive. It will be zeroes if there is no associated drive.
evtID (INT): DBS event ID number.
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
evtDetails (STRING): Specific details of the DBS data event. It may be a string, in JSON format, or empty.

callhome.dbs.cannot.sync.blk

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects the cluster Block data is in a degraded state, and the auto-heal process to restore full Block data redundancy cannot proceed. Block resources need to be added or restored to the cluster. Too many nodes, Block services, FireStorm services or aggregates may be offline; or possibly the cluster Block services are full. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the storage capacity of the cluster. If some capacity is currently unavailable due to drives or nodes being offline, attempt the repairs needed to bring them online. Free storage used by FlexVols by deleting unneeded volumes.

Syslog Message

The DBS cluster Block data cannot be made fully redundant.

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.clcap.full

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects the cluster (or node in the cluster) has completely consumed its capacity. The DBS is responsible for managing the data that backs the FlexVols®. The cluster data is now read-only. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the available capacity of this cluster relative to its usage. If some capacity is currently unavailable due to drives or nodes being offline, attempt the repairs needed to bring them online. Free storage used by

FlexVols by deleting unneeded volumes. If the cluster's available capacity appears inconsistent with the calculated expected capacity, then contact NetApp technical support.

Syslog Message

The DBS cluster capacity is 100%% full.

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.clcap.near.full

Severity

ALERT

Description

This message occurs when the Distributed Block Store (DBS) detects the cluster (or node in the cluster) has consumed nearly all of its capacity. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the available capacity of this cluster relative to its usage. If some capacity is currently unavailable due to drives or nodes being offline, attempt the repairs needed to bring them online. Free storage used by FlexVols by deleting unneeded volumes.

Syslog Message

The DBS cluster capacity is nearly full.

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.clst.ekm.server

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects one or more of the following: 1. An External Key Management server cannot be reached by any node and is considered down. 2. A fatal communication error has occured with an External Key Management server. Seek corrective-action immediately.

Corrective Action

Verify that the External Key Management server is running and can be reached by the management network. Verify that the correct root CA certificate and client certificate are configured for the Key Server (use openssl s_client to assist with troubleshooting). Check the logs on the External Key Management server for additional troubleshooting help. Contact NetApp technical support for assistance.

Syslog Message

Callhome for %s. Fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.data.unavail

Severity

EMERGENCY

Description

This message occurs when some portion of the Distributed Block Store (DBS) data cannot be accessed. The DBS is responsible for managing the data that backs the FlexVols®. Multiple DBS events that indicate data is unavailable are mapped to this one event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for help immediately.

Syslog Message

Call home for %s, event %s, type %s, service %u, node %u/%s, drive %u/%s, eventID %u.

Parameters

subject (STRING): AutoSupport subject or title for this event.

evtMessage (STRING): Description of the data event, including context details.

evtType (STRING): Type of the original DBS event.

serviceID (INT): Service ID that identifies the associated DBS service. It will be "0" if there is no associated service.

nodeID (INT): Node ID number of the associated node. It will be 0 if there is no associated node.

nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.

driveID (INT): Drive ID number of the associated drive. It will be 0 if there is no associated drive.

driveUuid (STRING): Drive UUID of the associated drive. It will be zeroes if there is no associated drive.

evtID (INT): DBS event ID number.

collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.

evtDetails (STRING): Specific details of the DBS data event. It may be a string, in JSON format, or empty.

callhome.dbs.dup.master

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects an internal database inconsistency. Master services have multiple entries for cluster master candidacy. Manual intervention is required.

Corrective Action

Contact NetApp technical support immediately.

Syslog Message

Callhome for %s. DBS has detected a critical issue. Cluster fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

cfType (STRING): DBS cluster fault type of the associated object.

cfID (INT): DBS cluster fault ID number associated with the fault.

cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).

collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.

cfDetails (STRING): Details of the duplicate master candidates.

cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.

skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ekm.cert.emer

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that an External Key Management server configuration contains a certificate that is invalid, is expired, or will expire in less than 3 days. Seek corrective-action immediately.

Corrective Action

Renew or correct each listed certificate and update the associated Key Server configuration. Contact NetApp technical support for assistance.

Syslog Message

Callhome for %s. Fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ensemble.emer

Severity

ERROR

Description

This message occurs when the Distributed Block Store (DBS) loses the database connection to over half of the ensemble nodes (of 3 or 5 total). DB quorum has been lost and the DB is down. The cluster cannot operate without access to the DB.

Corrective Action

Bring offline nodes back online and/or restore node network connectivity. If that does not resolve the fault, contact NetApp technical support.

Syslog Message

Callhome for %s. DBS has lost network connectivity or power on ensemble node. Cluster fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.

cfDetails (STRING): Description of the degraded ensemble.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ffmAggrFlagSet

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects one or more aggrs have a don't attach, don't mount or don't detach flag set.

Corrective Action

Resolve the issue that required the flag to be set, then remove the flag using the SetAggrFlags API command.

Syslog Message

Callhome for %s. Fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ffmFlexvolsOffl

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects one or more FlexVols are offline.

Corrective Action

Solve any issue contributing to the FlexVols being taken offline.

Syslog Message

Callhome for %s. Fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.generic.cfault

Severity

EMERGENCY

Description

This message occurs when a Distributed Block Store (DBS) emergency cluster fault is reported as a generic fault. The DBS is responsible for managing the data that backs the FlexVols®. Multiple faults are mapped to this one event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for interpretation of this event.

Syslog Message

Call home for %s, fault %s (%u), sev %u, service %u, node %u/%s, drives %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfCodeName (STRING): Name of the original DBS cluster fault code.
cfCode (INT): DBS cluster fault code number.
cfSeverity (INT): Severity of the original DBS cluster fault. This is different than the EMS severity.
serviceID (INT): Service ID that identifies the associated cluster service. It will be "0" if there is no associated service.
nodeID (INT): Node ID number of the associated node. It will be "0" if there is no associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
cfDriveIDs (STRING): List of the drive IDs associated with the fault. The list might be empty.
cfDriveUuids (STRING): List of the drive UUIDs associated with the fault. The list might be empty.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only

done for newly reported faults (see cfStatus).

callhome.dbs.inv.block.data

Severity

EMERGENCY

Description

This message occurs when a block stored in the Distributed Block Store (DBS) has inconsistent data. The cluster is checking the compression, block ID and checksum of the block against expected values. The DBS is responsible for managing the data that backs the FlexVols®. Multiple DBS events that indicate inconsistent data are mapped to this one event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for help immediately.

Syslog Message

Call home for %s, event %s, type %s, service %u, node %u/%s, drive %u/%s, eventID %u.

Parameters

subject (STRING): AutoSupport subject or title for this event.
evtMessage (STRING): Description of the data event, including context details.
evtType (STRING): Type of the original DBS event.
serviceID (INT): Service ID that identifies the associated DBS service. It will be "0" if there is no associated service.
nodeID (INT): Node ID number of the associated node. It will be 0 if there is no associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
driveID (INT): Drive ID number of the associated drive. It will be 0 if there is no associated drive.
driveUuid (STRING): Drive UUID of the associated drive. It will be zeroes if there is no associated drive.
evtID (INT): DBS event ID number.
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
evtDetails (STRING): Specific details of the DBS data event. It may be a string, in JSON format, or empty.

callhome.dbs.mem.thresh.emer

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects container memory 100 percent consumed.

Corrective Action

Add additional nodes, or purge deleted volumes and run GC

Syslog Message

Callhome for %s. DBS has detected free memory is completely consumed on a node's container. Cluster fault node %u, node UUID %s, type %s, fault ID %u, status %u, nodes %s. %s

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.
> **nodeID** (INT): Node ID number of the associated node.
> **nodeUUID** (STRING): Node UUID string of the associated node.
> **cfType** (STRING): DBS cluster fault type of the associated object.
> **cfID** (INT): DBS cluster fault ID number associated with the fault.
> **cfStatus** (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
> **collectAsupNodes** (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
> **cfDetails** (STRING): Details of the memory usage threshold.
> **cfExtSrc** (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
> **skip_callhome** (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.multSliceSvcDn

Severity

> EMERGENCY

Description

> This message occurs when the Distributed Block Store (DBS) detects multiple unhealthy slice services. This may cause some data to be unavailable.

Corrective Action

> If multiple slice services are unhealthy, repair offline nodes and drives to bring slice services back online. Contact NetApp technical support.

Syslog Message

> Call home for %s. Fault type %s, fault id %u, status %u, nodes %s. %s.

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.
> **cfType** (STRING): DBS cluster fault type of the associated object.
> **cfID** (INT): DBS cluster fault ID number associated with the fault.
> **cfStatus** (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
> **collectAsupNodes** (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
> **cfDetails** (STRING): Description of the cluster fault, including context details.
> **cfExtSrc** (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
> **skip_callhome** (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.node.ekm.server

Severity

> EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that a node is unable to reach an External Key Management server that is not considered down (other nodes are able to reach it). Seek corrective-action immediately.

Corrective Action

Perform troubleshooting at the network or node-specific level to determine why the listed node is unable to reach the External Key Management server. Contact NetApp technical support for assistance.

Syslog Message

Callhome for %s. Cluster fault node %u, node UUID %s, type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
nodeID (INT): Node ID number of the associated node.
nodeUUID (STRING): Node UUID string of the associated node.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.sec.cache.full

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that Slice volume secondary write cache is full. This is caused when Slice service write requests to the Block service (and by extension the FireStorm service) are not receiving replies. Client write performance may be reduced while this condition exists. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Verify that all nodes are online. Verify that all Block and FireStorm services, and associated aggregates, are online. Attempt repairs needed to bring nodes and aggregates online. If the reason for this condition cannot be found, contact NetApp technical support.

Syslog Message

Call home for %s, service %u, node %u/%s, drives %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

serviceID (INT): Service ID that identifies the associated cluster service.

nodeID (INT): Node ID number of the associated node.

nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.

cfDriveIDs (STRING): List of the drive IDs associated with the fault. The list might be empty.

cfDriveUuids (STRING): List of the drive UUIDs associated with the fault. The list might be empty.

cfType (STRING): DBS cluster fault type of the associated object.

cfID (INT): DBS cluster fault ID number associated with the fault.

cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).

collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.

cfDetails (STRING): Description of the cluster fault, including context details.

cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.

skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ssl.ndcert.exc

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that a node has a missing or corrupted certificate.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Callhome for %s. Cluster fault node %u, node UUID %s, type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

nodeID (INT): Node ID number of the associated node.

nodeUUID (STRING): Node UUID string of the associated node.

cfType (STRING): DBS cluster fault type of the associated object.

cfID (INT): DBS cluster fault ID number associated with the fault.

cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).

collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.

cfDetails (STRING): Description of the cluster fault, including context details.

cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.

skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.ssl.ndcert.exp

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that a node contains an SSL certificate that has expired or will expire imminently.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Callhome for %s. Cluster fault node %u, node UUID %s, fault type %s, fault ID %u, status %u, nodes %s. %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
nodeID (INT): Node ID number of the associated node.
nodeUUID (STRING): Node UUID string of the associated node.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.svcap.full

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects a service (Slice or Block) that has completely consumed its capacity. The DBS is responsible for managing the data that backs the FlexVols®. The data for this service is now read-only. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the available capacity of this service relative to its usage. If some capacity is currently unavailable due to drives or nodes being offline, attempt the repairs needed to bring them online. Free storage used by FlexVols by deleting unneeded volumes. If the services's available capacity appears inconsistent with the calculated expected capacity, then contact NetApp technical support.

Syslog Message

Call home for %s, service %u, node %u/%s, drives %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
serviceID (INT): Service ID that identifies the associated cluster service.

nodeID (INT): Node ID number of the associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
cfDriveIDs (STRING): List of the drive IDs associated with the fault. The list might be empty.
cfDriveUuids (STRING): List of the drive UUIDs associated with the fault. The list might be empty.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.dbs.svcap.near.full

Severity

ALERT

Description

This message occurs when the Distributed Block Store (DBS) detects a service (Slice or Block) that has consumed nearly all of its capacity. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the available capacity of this service relative to its usage. If some capacity is currently unavailable due to drives or nodes being offline, attempt the repairs needed to bring them online. Free storage used by FlexVols by deleting unneeded volumes.

Syslog Message

Call home for %s, service %u, node %u/%s, drives %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
serviceID (INT): Service ID that identifies the associated cluster service.
nodeID (INT): Node ID number of the associated node.
nodeUuid (STRING): Node UUID of the associated node. It will be zeroes if there is no associated node.
cfDriveIDs (STRING): List of the drive IDs associated with the fault. The list might be empty.
cfDriveUuids (STRING): List of the drive UUIDs associated with the fault. The list might be empty.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only

done for newly reported faults (see cfStatus).

callhome.dbs.volumes.offline

Severity

EMERGENCY

Description

This message occurs when the Distributed Block Store (DBS) detects that one or more volumes in the storage cluster are offline. For the volumes listed, both copies of volume slice data are unavailable. The volumes are degraded and the primary slice service becomes unresponsive, as detected by the Cluster Master. The VolumesDegraded fault will also be present. The DBS is responsible for managing the data that backs the FlexVols®. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check for network connectivity issues and hardware errors. There should be other faults if specific hardware components have failed. Attempt to resolve these issues. The fault will clear when the primary slice service is responsive. Contact Support if there are no associated hardware faults and this fault persists long enough to affect client applications.

Syslog Message

Call home for %s. One or more DBS volumes offline.

Parameters

subject (STRING): AutoSupport subject or title for this event.
cfType (STRING): DBS cluster fault type of the associated object.
cfID (INT): DBS cluster fault ID number associated with the fault.
cfStatus (INT): Current status of the cluster fault. 1 = New (just reported), 2 = Existing (updated), 3 = Resolved (closed).
collectAsupNodes (STRING): List of the node universal unique identifiers (UUIDs) from which AutoSupport messages should be collected.
cfDetails (STRING): Description of the cluster fault, including context details.
cfExtSrc (STRING): DBS cluster fault externalSource label created by the CreateClusterFault API command and attached to the fault for testing purposes.
skip_callhome (INT): If 1, then the ASUP call home was not executed for this event. Call home is only done for newly reported faults (see cfStatus).

callhome.device events

callhome.device.qual

Severity

ALERT

Description

This message occurs when the system detected a disk drive device that did not receive qualification from NetApp. Unqualified disk drives can cause serious damage to the system, and the system shuts down within 72 hours to prevent this potential damage. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination

and resolution.

Corrective Action

To correct this situation, complete one of the following steps: 1. Download and install the latest Drive Qualification Package (DPQ) from NetApp technical support. This automatically qualifies any disk drives that were provided by NetApp. Search the support site knowledge base for the "DQP" keyword for further information. 2. Remove the unqualified disk drives from the system. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DEVICE_QUALIFICATION_FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.disk events

callhome.disk.carrier.evacuation.notpossible

Severity

ALERT

Description

This message occurs when a system does not contain enough spares to correct existing disk failures. This message is seen only on systems containing disk carriers capable of holding more than one disk. When this message occurs, manual intervention is required because ONTAP® cannot automatically correct the existing issues with the system's disk configuration. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

To correct this issue on systems that contain carriers with multiple disks, try the following (in the specified order): (1) Assign any unassigned disks that are contained within a multidisk carrier. (2) Add multidisk carriers. (3) If a replacement carrier is available, do the following: a) Fail ALL disks within the carrier. Do not remove a multidisk carrier that contains non-failed disks; doing so results in system degradation and might result in system failure. b) Wait until the disk's amber Attention LEDs stop flashing and are lit continuously. Do not remove a carrier while the shelf OPS panel is alternating between the shelf ID and the Attention Code H1, or while the disks within the carrier are flashing their amber Attention LEDs. c) Replace the carrier. (4) Reassign partner spare disks in the HA configuration. (5) If the problem persists, call NetApp technical support.

Syslog Message

Call home for DISK_CARRIER_EVACUATION_NOTPOSSIBLE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.disk.low.io

Severity

NOTICE

Description

This message occurs when the storage health monitor detected low disk drive throughput. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for DISK_LOW_THRUPUT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.disk.orphan

Severity

NOTICE

Description

This message occurs when RAID subsystem detects an orphan or broken drive and is processing it. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.diskown events

callhome.diskown.AssignExceeded

Severity

ERROR

Description

This message occurs when too many disks have been installed. An attempt is made to assign more disks than the maximum that can be supported on this node. This problem must be resolved before the system is rebooted. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the system capacity limits and the assigned disks on this system. If possible, unassign the unused array LUNs. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for ATTEMPTED TO ASSIGN MORE DISKS THAN MAXIMUM SUPPORTED.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.disks events

callhome.disks.missing

Severity

ERROR

Description

This message occurs when the system detected simultaneously that multiple disk drives were missing from the system. It generated a single "MULTIPLE DISKS MISSING" message rather than multiple "DISK MISSING" messages. The problem might be due to a Fibre Channel loop (connection) or a disk shelf or disk drive operating incorrectly. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you need assistance, contact NetApp technical support.

Syslog Message

Call home for MULTIPLE DISKS MISSING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dr events

callhome.dr.apply.failed

Severity

ERROR

Description

This message occurs when all attempts to replicate the configuration fails. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

To troubleshoot further, search the event management system (EMS) logs on the destination cluster for

events starting with "vsdr". Perform any provided corrective actions. For further assistance, contact NetApp technical support.

Syslog Message

Call home for DR CONFIG REPLICATION FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.
DestinationVserver (STRING): Destination Vserver of the DR relationship.
FailedReason (STRING): Failed reason.

callhome.dsk events

callhome.dsk.bypass

Severity

ERROR

Description

This message occurs when a disk drive failure occurred and the Embedded Switched Hub (ESH) removed the disk drive from the loop electronically—bypassing the disk drive on one or possibly both ports. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Depending on your system configuration, you might need to place the disk drive software into a failed state to match what the ESH module did. Then locate and replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_FAIL - Bypassed by ESH

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.config

Severity

ERROR

Description

This message occurs when the system detects a configuration problem with a disk drive, Fibre Channel switch, or host bus adapter (HBA). A cabling issue might be causing the problem. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review and repair the cabling and SAN configuration. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK CONFIGURATION ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.disable

Severity

ERROR

Description

This message occurs when a disk drive failure occurred and the I/O Module (IOM) removed the disk drive from the system by disabling the PHY on one or possibly both ports. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Depending on your system configuration, you might need to place the disk drive software into a failed state to match what the IOM did. Then locate and replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_FAIL - Disabled by IOM

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.fault

Severity

ERROR

Description

This message occurs when a disk drive fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.fw.needed

Severity

ERROR

Description

This message occurs when the system detects one or more disk drives with out of date or "downrev" disk firmware. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check and update all the disk drive firmware levels to the current the disk drive firmware level. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_FIRMWARE_NEEDED_UPDATE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.init

Severity

ERROR

Description

This message occurs when a disk drive failed to initialize. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK INIT FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.io.degraded

Severity

ERROR

Description

This message occurs when the storage health monitor detects degraded disk I/O (taking too long) that indicates a problem with a disk drive. A disk drive might not be using the most recent disk drive firmware. If the disk drive is using the most recent firmware, it might be at a higher risk of failing. If your system is

configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify the disk drive that caused this event and verify that it is running the most recent firmware. If the firmware is not up to date, update it to ensure that problems do not continue. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_IO_DEGRADED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.label

Severity

ALERT

Description

This message occurs when a disk drive failed due to unexpected RAID metadata. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK BAD LABEL

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.label.broken

Severity

ERROR

Description

This message occurs when a disk drive fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK LABELED BROKEN

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.label.v

Severity

ERROR

Description

This message occurs when a disk drive failed due to a version number in its RAID metadata that is inconsistent with the operating system version installed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK BAD LABEL VERSION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.missing

Severity

ERROR

Description

This message occurs when the system cannot detect a disk drive in the Fibre Channel network (or loop) that it previously discovered. The error might be caused by a failed disk drive in the chassis still awaiting replacement or a broken connection to the disk drive. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate and replace the defective disk drive. If you already replaced it, check the Fibre Channel network for network connectivity from the appliance to the disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK MISSING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.no.spin

Severity

ERROR

Description

This message occurs when a disk drive fails to start. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Logged message 'disk.init.failure.spinup' identifies the failed disk drive. Locate and replace the disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK NOT SPINNING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.noio

Severity

ERROR

Description

This message occurs when disk drive device commands to a disk drive are failing with link errors, adapter errors, or timeouts. With this type of problem, the disk drives's red or amber LED fault light may not be lit. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK NOT RESPONDING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.predict

Deprecated

Deprecated as of ONTAP 9.2. Last used in DOT 7.1.1.

Severity

ALERT

Description

This message occurs when the storage health monitor PFA (predictive failure analysis) determines that disk drive failure is forthcoming. A disk drive might not be using the most recent disk drive firmware. If the disk drive is using the most recent firmware, it might be at higher risk of failing. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify the disk drive that caused this event and check whether the firmware is up-to-date. If the firmware is not up-to-date, update it to ensure that problems do not continue. If the firmware is up-to-date, manually fail the faulty disk drive and remove it from the system to ensure the integrity of data. At the earliest opportunity, install a replacement disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_FAILURE_PREDICTED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.redun.fault

Severity

ERROR

Description

This message occurs when redundant access to disk storage is lost. This message and associated Autosupport are issued at most once per day. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate disks which have lost redundancy by using the following command: "storage disk show -fields disk,primary-port,secondary-name,secondary-port,shelf,bay" Note all channels with single path connectivity. Check for failures using these commands: "system health node-connectivity shelf show" and "system health system-connectivity shelf show". If a module or cable failure is identified, replace the failed module or cable. Confirm redundancy has been restored with the following command: "storage disk show -fields disk,primary-port,secondary-name,secondary-port,shelf,bay" If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK REDUNDANCY FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.scrub

Severity

ALERT

Description

This message occurs when the weekly scheduled disk scrub detects checksum errors. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the results of the disk scrub. Your next steps depend on the result of your review, and might include replacing the disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK SCRUB CHECKSUM ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.scrub.done

Severity

ERROR

Description

This message occurs when a disk scrub finishes bypassing media errors and places the aggregate in a normal state. This type of disk scrub is started automatically after walfiron when disk reconstruction is bypassing media errors. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the results of the disk reconstruction, wafliron, and disk scrub. Your next steps depend on the result of your review, and might include replacing the disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK SCRUB COMPLETED (bypassing media errors)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.scrub.parity

Severity

ALERT

Description

This message occurs when the scheduled disk scrub detects parity inconsistencies. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp

technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the results of the disk scrub. Your next steps depend on the result of your review, and might include replacing the disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK SCRUB PARITY INCONSISTENCY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.sense

Severity

ERROR

Description

This message occurs when storage health monitor detects a SCSI sense error that indicates a problem with a disk drive. A disk drive might not be using the most recent disk drive firmware. If the disk drive is using the most recent firmware, it might be at a higher risk of failing. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Identify the disk drive that caused this event and verify that it is running the most recent firmware. If the firmware is not up-to- date, update it to ensure that problems do not continue. If the firmware is up-to-date, manually fail the faulty disk drive and remove it from the system to ensure the integrity of data. At the earliest opportunity, install a replacement disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK_RECOVERED_ERRORS

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dsk.shrank

Severity

ALERT

Description

This message occurs when either an aggregate or hot spare disk drive fails because its raw capacity was downsized due to a firmware change. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage disk show -broken" command to locate the failed drive. Confirm the location by looking for a drive whose red and amber LED fault lights are lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for DISK RAWSIZE SHRANK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.dumptriage events

callhome.dumptriage

Severity

NOTICE

Description

This message occurs when kernel dumptriage files are collected for a coredump event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
core_filename (STRING): Coredump filename used to find the correct set of dumptriage files.

callhome.encl events

callhome.encl.access

Severity

ERROR

Description

This message occurs when contact to one or more disk shelf enclosure services (environmental monitoring) is lost, possibly due to storage cabling, adapter, or configuration problems. The system uses the enclosure services to monitor the environment continuously to ensure that conditions remain at safe operating levels. If the system cannot contact the enclosure services, it cannot detect when operating conditions move into unsafe ranges and cannot minimize any damage that might result. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "storage errors show" command to display the current outstanding shelf error conditions. Use the "event log show" command to identify earlier EMS messages related to shelf connectivity errors. Restore connectivity to the disk shelf enclosure services. Check cabling for loose connections. Swap out adapters, if possible. Double-check the configuration. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for ENCLOSURE SERVICES ACCESS ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ext events

callhome.ext.cache.bad

Severity

ALERT

Description

This message occurs when a check of the external memory cache used for increasing system performance has failed and this cache has been disabled. System operations will continue with possibly reduced performance. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The external memory cache should checked and possibly repaired to restore its service to the system. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for EXTERNAL CACHE FAILURE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fans events

callhome.fans.failed

Severity

EMERGENCY

Description

This message occurs when multiple fans inside the appliance case fail. This failure can lead to overheating and cause damage to your equipment. The system shuts down within 10 minutes unless you resolve the fan problems. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the fans within 10 minutes. If that is not possible, perform a graceful shutdown of the system and power it off. Then replace the fans when you can, power on the system, and restore it to normal operation. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for MULTIPLE FAN FAILURE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fc events

callhome.fc.al.link

Severity

ALERT

Description

This message occurs when a Fibre Channel arbitrated loop (FC-AL) has link failures. You need to resolve this issue promptly. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the FC-AL itself and the connections to the FC-AL for poor or broken connections and misconfigurations. Examine the event log for messages related to FC or disk I/O errors and take the corrective actions found there. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fc.al.poor

Deprecated

Deprecated as of ONTAP 9.2. Last used in DOT 7.1.0.

Severity

ALERT

Description

This message occurs when the system detects that a Fibre Channel arbitrated loop (FC-AL) is unreliable or is too poor in quality for data exchange. You need to resolve this issue promptly. The link errors are recoverable in the sense that the system is up and running. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the FC-AL itself and the connections to the FC-AL for poor or broken connections and misconfigurations. Examine the event log for messages related to FC or disk I/O errors and take the corrective actions found there. Restore normal, error-free communication for the FC-AL as quickly as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FC-AL RECOVERABLE ERRORS

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fcp events

callhome.fcp.adapter.failed

Severity

ERROR

Description

This message occurs when a Fibre Channel Protocol (FCP) HBA Host Bus Adapter (HBA) in this node has failed to read a critical setting from the adapter's internal configuration. The adapter should be replaced. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the FCP adapter in the slot specified in this message. Replace the adapter. If the adapter name starts with 0, the motherboard may need to be replaced. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fcp.sram.dump

Severity

ERROR

Description

This message occurs when a Fibre Channel Protocol (FCP) HBA Host Bus Adapter (HBA) in this node has recorded to disk a memory image from its Static Random Access Memory (SRAM). The SRAM dump has been performed as the result of several possible reasons, including a command directive and HBA firmware restart. Note that performing a dump of a HBA can disrupt data access operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If this event happens as a result of a command directive such as "fcp dump", the dump operation is expected. If this event happens as a result of HBA reset, the collected dump files can be used by technical support for subsequent analysis. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FCP SRAM DUMP.

Parameters

subject (STRING): AutoSupport subject or title for this event.
portInstance (INT): Instance number of the target port where the dump occurs.
dumpDirName (STRING): Directory location where the FC dumps are stored.
portName (STRING): FC HBA's name.

callhome.fdsk events

callhome.fdsk.admin

Severity

NOTICE

Description

This message occurs when you fail a file system disk drive. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for FILESYSTEM DISK ADMIN FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.fault

Severity

ERROR

Description

This message occurs when a disk drive fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.label

Severity

ERROR

Description

This message occurs when a disk drive fails due to unexpected RAID metadata. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM DISK BAD LABEL

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.label.v

Severity

ERROR

Description

This message occurs when a disk drive fails due to a version number in its RAID metadata that is inconsistent with the operating system version installed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM DISK BAD LABEL VERSION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.missing

Severity

ERROR

Description

This message occurs when the system detects that a disk drive is not in a loop or is missing. This might also occur when a failed disk drive is still in the chassis awaiting replacement. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate and replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM DISK MISSING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.noio

Severity

ERROR

Description

This message occurs when disk drive device commands to a file system disk drive are failing with link errors, adapter errors, or timeouts. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM DISK NOT RESPONDING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fdsk.shrank

Severity

ERROR

Description

This message occurs when an aggregate disk drive fails because its raw capacity was downsized due to a firmware change. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an

AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. After the automated e-mail is sent to you with the case# and instructions, the case is closed. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM DISK RAWSIZE SHRANK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.flash events

callhome.flash.cache.degraded

Severity

ERROR

Description

This message occurs when Flash Management Module (FMM) detects that a percentage of a Flash Cache is offline that is above a warning threshold. FMM monitors all flash devices in the system that attach with it. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

A Flash Cache has degraded. This is an indication or the cause of a performance degradation. Exact impact cannot be estimated. This Flash Cache needs to be repaired or replaced. Contact customer support for more details.

Syslog Message

Call home for Flash Cache DEGRADED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.flash.cache.failed

Severity

ALERT

Description

This message occurs when Flash Management Module (FMM) detects that a Flash Cache has suffered a failure. Typically, this is the result of a hardware failure on the Flash Cache itself. FMM monitors all flash devices in the system that attach with it. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The Flash Cache can fail due to many reasons. If you see "iomem.dma.internal" in EMS log, reboot the system. If the state of the Flash Cache in system configuration shows 'Failed firmware', update the device (follow the corrective action of the "iomem.card.fail.fpga.rev" EMS message). For all other reasons, replace the Flash Cache. For further assistance, contact technical support.

Syslog Message

Call home for Flash Cache FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.flash.cache.offlined

Severity

ALERT

Description

This message occurs when Flash Management Module (FMM) detects that a critical percentage of a Flash Cache is offline, beyond which the device cannot operate. FMM turned off this device. FMM monitors all flash devices in the system that attach with it. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

A Flash Cache was offlined. This is an indication or the cause of a performance degradation. Exact impact cannot be estimated. This Flash Cache needs to be repaired or replaced. Contact customer support for more details.

Syslog Message

Call home for Flash Cache OFFLINED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.fs events

callhome.fs.lun.resized

Severity

ALERT

Description

This message occurs when the system has detected that a filesystem logical disk array or LUN (Logical Unit Number) stored raw size no longer matches the reported physical size of the LUN. Resizing of a filesystem gateway LUN is not supported. Only gateway LUNs that are spare (not used in a filesystem) may be resized. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Restore the logical disk array or LUN raw size to the expected file system size that system expects. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for FILESYSTEM LUN RESIZED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hainterconnect events

callhome.hainterconnect.down

Severity

ALERT

Description

This message occurs when the high-availability (HA) interconnect is down. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Corrective action depends on the number and type of HA interconnect links supported by the platform,as well as the reason for which the interconnect is down. EMS event "ic.HAInterconnectDown" provides the reason information. a. If links are down: Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that the small form-factor pluggables (SFPs), if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the "ic link off" and "ic link on" commands. b. If links are disabled: Enable the links by using the "ic link on" command. c. If a peer is not connected: Disable and reenable the links one at a time by using the "ic link off" and "ic link on" commands. Contact NetApp technical support if the problem persists.

Syslog Message

Call home for %s due to %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
reason (STRING): Reason for interconnect down.

callhome.hba events

callhome.hba.failed

Severity

EMERGENCY

Description

This message occurs when a HBA port is taken offline due to read-after-write verification errors. This AutoSupport message and associated EMS messages are issued once for a given port. If your system is

configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Hardware components might need to be replaced. Contact NetApp technical support for assistance.

Syslog Message

Call home for %s. Keep the adapter offline and contact NetApp technical support for assistance.

Parameters

subject (STRING): AutoSupport subject or title for this event.
adapterName (STRING): Name of the adapter.

callhome.hm events

callhome.hm.alert.critical

Severity

ALERT

Description

This message occurs when an error is detected during the periodic health health monitoring of system health monitors. System health monitors create alerts for potential problems detected while monitoring the subsystem. The alerts contain information about probable cause along with recommended actions to rectify the problem. This message is generated after every polling interval if new alerts are detected during this interval. Polling interval is configurable. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "system health alert show" command to view details about new alerts in the system. Details of the alerts can be found in the AutoSupport. To correct the alert conditions, refer to the corrective actions described in the alert. Contact NetApp technical support for additional information.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hm.alert.major

Severity

ALERT

Description

This message occurs when an error is detected during the periodic health health monitoring of system health monitors. System health monitors create alerts for potential problems detected while monitoring the subsystem. The alerts contain information about probable cause along with recommended actions to rectify

the problem. This message is generated after every polling interval if new alerts are detected during this interval. Polling interval is configurable. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "system health alert show" command to view details about new alerts in the system. Details of the alerts can be found in the AutoSupport. To correct the alert conditions, refer to the corrective actions described in the alert. Contact NetApp technical support for additional information.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hm.alert.minor

Severity

ERROR

Description

This message occurs when an error is detected during the periodic health health monitoring of system health monitors. System health monitors create alerts for potential problems detected while monitoring the subsystem. The alerts contain information about probable cause along with recommended actions to rectify the problem. This message is generated after every polling interval if new alerts are detected during this interval. Polling interval is configurable. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "system health alert show" command to view details about new alerts in the system. Details of the alerts can be found in the AutoSupport. To correct the alert conditions, refer to the corrective actions described in the alert. Contact NetApp technical support for additional information.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hostport events

callhome.hostport.bypass

Severity

ALERT

Description

This message occurs when an Embedded Switched Hub (ESH) bypasses a host port due to excessive errors on the port. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Depending on your system configuration, you might need to replace the ESH Module or replace the Fibre Channel cable to the host port. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for HOST_PORT_FAIL - Bypassed by ESH

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hostport.disable

Severity

ALERT

Description

This message occurs when an I/O Module (IOM) disables a host port due to excessive errors on the port. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Depending on your system configuration, you might need to replace the IOM or ensure that a good cable is attached to the host port. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for HOST_PORT_FAIL - Disabled by IOM

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hwaccel events

callhome.hwaccel.qat.dump

Severity

NOTICE

Description

This message occurs when the hardware accelerator gets certain threshold number of errors and collects related diagnostic data concerning the device. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.hwaccel.reset

Severity

NOTICE

Description

This message occurs when the hardware accelerator is being reset and collects related diagnostic data concerning the device. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ibretimerprog events

callhome.ibretimerprog.fail

Severity

EMERGENCY

Description

This message occurs when InfiniBand (IB) retimer programming of the high- availability (HA) interconnect link failed after multiple retry attempts. The affected InfiniBand HA interconnect link is down. The failure can be due to any of the following reasons: InfiniBand device not found, GPIO read failure, QSFP register dump failure, QSFP parse failure, or retimer failure. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

This failure can be due to defective hardware or cabling. Contact NetApp technical support for further assistance.

Syslog Message

Call home for INFINIBAND RETIMER PROGRAMMING FAILURE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.invoke events

callhome.invoke

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport® message, and the "type" of that message is set to "test". This message contains very little content and is intended for testing AutoSupport® end-to-end. When this message arrives at NetApp technical support, a confirmation email is sent to email destinations specified by the -to parameter. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this ASUP. If this is set, this ASUP is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If zero then obey the normal "state" and "support" flags. If this is "one", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.invoke.all

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport® message, and the "type" of that message is set to "all". For the benefit of technical support, the message also contains troubleshooting content, which might lengthen the collection time required. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

User triggered complete call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this ASUP. If this is set, this ASUP is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If zero then obey the normal "state" and "support" flags. If this is "one", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.invoke.remotesplog

Severity

NOTICE

Description

This message occurs when an administrator invokes an AutoSupport message on a node to collect the logs from the service processor of another node in the cluster. If the system is configured to do so, it generates and transmits an AutoSupport message (or 'call home' message) to NetApp technical support and to the configured destinations.

Corrective Action

(None).

Syslog Message

Call home (Remote SP LOG) for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this ASUP. If this is set, this ASUP is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If zero then obey the normal "state" and "support" flags. If this is "one", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.invoke.splog

Severity

NOTICE

Description

This message occurs when an administrator invokes an AutoSupport message for Service Processor (SP) log collection from ONTAP® CLI. If your system is configured to do so, it generates and transmits an AutoSupport message (or 'call home' message) to NetApp technical support and to the configured

destinations.

Corrective Action

(None).

Syslog Message

Call home (SP LOG %s)

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this ASUP. If this is set, this ASUP is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If zero then obey the normal "state" and "support" flags. If this is "one", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
for_node_id (STRING): Node where the log is being collected (local or partner node).

callhome.invoke.splog.full

Severity

NOTICE

Description

This message occurs when an administrator invokes an AutoSupport message for full Service Processor (SP) or baseboard management controller (BMC) log collection from ONTAP® CLI. If your system is configured to do so, it generates and transmits an AutoSupport message (or 'call home' message) to NetApp technical support and to the configured destinations.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.iscsi events

callhome.iscsi.hba.crash

Severity

ALERT

Description

This message occurs when the iSCSI host bus adapter (HBA crashes. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the HBA is in use, reboot your system to reset the HBA and retrieve the crash-dump file. Contact NetApp technical support and provide the crash-dump file for support purposes.

Syslog Message

Call home for ISCSI HBA CRASH

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.isp events

callhome.isp.adapter.bad

Deprecated

Deprecated as of ONTAP 9.2. Last used in R8.2.x.

Severity

ERROR

Description

This message occurs when the system detects multiple Static Random Access Memory (SRAM) parity errors within a 30 day period. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Replace the Fibre Channel adapter that is exhibiting subsequent parity errors to insure continued operations. Look for the "fci.adapter.parity:info" EMS message in the event log to identify the adapter that is encountering the SRAM parity error and needs to be replaced. You can also check the output of the "FC-STATS" section in AutoSupport and look for the value of link state counter "adap_sram_parity_error_cnt" which will be more than one for the concerned adapter. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SRAM PARITY ERRORS ON FIBRE CHANNEL ADAPTER - replace adapter

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.jpc events

callhome.jpc.selection.fail

Severity

ALERT

Description

This message occurs when the Kernel Cluster Services (KCS) / Cluster Transaction Manager (CTRAN)

detects that the algorithm to reselect the Join Proposal Coordinator (JPC) is failing repeatedly. The JPC is reselected when the node that hosted the JPC goes out of quorum. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for JOIN PROPOSAL COORDINATOR SELECTION FAILING.

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.kernel events

callhome.kernel.core

Deprecated

Deprecated as of ONTAP 9.3. This event is replaced by the callhome.kernel.coreinfo event.

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for kernel coredump files. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Kernel coredump callhome for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If "0" then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this coredump AutoSupport message.
core_filename (STRING): Coredump filename to be included in the coredump AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport via AutoSupport OnDemand.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.kernel.coreinfo

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for kernel coredump files. It contains content relevant to userspace cores. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Kernel coredump callhome for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If "0" then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this coredump AutoSupport message.
core_filename (STRING): Coredump filename to be included in the coredump AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport via AutoSupport OnDemand.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.link events

callhome.link.change.stuck

Severity

ALERT

Description

This message occurs when a network port link state change cannot be confirmed for more than 5 minutes because another configuration task is still in progress. Network port states can change when the node reboots or is administratively changed by a system administrator. The affected port might still be operating in the state before the attempted change. While this condition exists, additional configuration changes or status queries will not be possible. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The link state change request will keep retrying until it succeeds. If the request does not succeed, it indicates that there is a configuration task that has not correctly completed and the node should be

rebooted. For further assistance, contact NetApp technical support.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.management events

callhome.management.log

Severity

NOTICE

Description

This message occurs when the MANAGEMENT_LOG AutoSupport or 'call home' event is sent. This message occurs on a daily basis and is sent from from clustered nodes only. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the node. If your node is configured to do so it generates and transmits an AutoSupport (or 'call home') to NetApp technical support and to the configured destinations on a daily basis. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for MANAGEMENT_LOG

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.management.log.rotate

Severity

NOTICE

Description

This message occurs when the (MANAGEMENT_LOG ROTATE) AutoSupport or 'call home' event is sent. This callhome message is a supplement to the daily callhome.management.log message. The callhome.management.log.rotate message occurs whenever a log file rotates due to size. This message avoids log information gaps when log files rotate. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the node. If your node is configured to do so it generates and transmits an AutoSupport (or 'call home') to NetApp technical support and to the configured destinations on a daily basis. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home %s for filename: %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
filename (STRING): The name of the log file that rotated.

callhome.mcc events

callhome.mcc.auso.2min

Severity

ALERT

Description

This message occurs when a MetroCluster(tm) automatic unplanned switchover operation has completed and the outage window was longer than 120 sec. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check why switchover was triggered by using the "event log show" command and search for event "mcc.auso.triggered". Use the "metrocluster operation show" command to view the details of the switchover operation. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multinode ASUP.

callhome.mcc.auso.complete

Severity

ALERT

Description

This message occurs when a MetroCluster(tm) automatic unplanned switchover operation has completed. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check why switchover was triggered by using the "event log show" command and search for event "mcc.auso.triggered". Use the "metrocluster operation show" command to view the details of the switchover operation. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multinode ASUP.

callhome.mcc.auso.trig.fail

Severity

EMERGENCY

Description

This message occurs when a MetroCluster(tm) automatic unplanned switchover trigger failed to initiate a switchover operation. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Verify the health of each node and that automatic unplanned switchover is enabled on both by using the "metrocluster node show" command. Use the "metrocluster switchover -forced-on-disaster true" command to switch over the DR-site storage manually. For further assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.auso.trig.shut

Severity

ALERT

Description

This message occurs when automatic unplanned switchover (AUSO) in a MetroCluster(tm) IP configuration is triggered due to remote site shutdown.

Corrective Action

Check the hardware conditions at the remote site for the cause of the environmental shutdown. Use the "metrocluster operation show" command to view the details the switchover operation. If you need assistance, contact NetApp technical support.

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.clst.dm.wd.gvup

Severity

ALERT

Description

This message occurs when the Cluster DM Watchdog thread has given up after retrying for over an hour. Cluster configuration replication services are affected and configuration updates might be lost. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Examine the event management system (EMS) logs for any related issues. Perform any provided corrective actions. For further assistance, contact NetApp technical support.

Syslog Message

Call home for METROCLUSTER CLUSTER DM WATCHDOG GAVE UP

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.cluster_dm.stream_in_error

Severity

ALERT

Description

This message occurs when cluster-domain sender/receiver stream has an error. The stream type is indicated through the flag. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER CLUSTER_DM SENDER/RECEIVER STREAM_IN_ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.
stream (STRING): Stream is sender or receiver.

callhome.mcc.config.complete

Severity

NOTICE

Description

This message occurs when the "metrocluster configure" operation is successful. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message

significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER CONFIGURE COMPLETE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.encryption.enabled

Severity

NOTICE

Description

This message occurs when encryption for NVLog and storage replication is enabled in a MetroCluster(tm) IP configuration.

Corrective Action

(None).

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.fcvi.reset

Severity

NOTICE

Description

This message occurs when fcvi adapter has been reset. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER FCVI RESET

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.heal_aggr.failed

Severity

ALERT

Description

This message occurs when metrocluster heal aggregates operation has failed. The failure could be partial or complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run 'metrocluster operation show' to determine the failure reason and take appropriate corrective measure. Retry the operation following the corrective measure. If the failures persists or need assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER HEAL_AGGR FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.heal_root.failed

Severity

ALERT

Description

This message occurs when metrocluster heal root-aggregates operation has failed. The failure could be partial or complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run 'metrocluster operation show' to determine the failure reason and take appropriate corrective measure. Retry the operation following the corrective measure. If the failures persists or need assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER HEAL_ROOT FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.network.stats

Severity

NOTICE

Description

This message occurs when a MetroCluster over IP configuration detects network behavior change over the inter-cluster links (ISL) that connect sites. Diagnostic information is collected as part of this event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s. Number of times network changed since last callhome: %d.

Parameters

subject (STRING): AutoSupport subject or title for this event.
event_count (INT): Number of times network behavior change was flagged by the analysis engine since the last callhome message was sent.

callhome.mcc.okm.sync.needed

Severity

ALERT

Description

This message occurs when clusters in a MetroCluster(tm) configuration have inconsistent Onboard Key Manager (OKM) data, including differing cluster passphrases or differing OKM hierarchies. The "security key-manager onboard sync" command should be run to prevent any failures in future switchover or switchback events. This message will be generated on both the local cluster and the peer cluster. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER OKM SYNC NEEDED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.personality

Severity

ALERT

Description

This message occurs when the All-Flash Optimized node in a MetroCluster configuration detects that it has a different personality setting. This error can occur when a node loses its All-Flash Optimized setting. When this happens, the node may not function properly. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination

and resolution.

Corrective Action

A node configured with All-Flash Optimized personality recognizes only SSD disks and ignores hard disk drives(HDD). The personality is determined at boot time by checking the bootarg value "bootarg.init.flash_optimized". If the intended configuration of the node is All-Flash Optimized, any HDDs need to be removed and the bootarg needs to be set to true using the "setenv bootarg.init.flash_optimized true" command in maintenance mode. Otherwise, use the "unsetenv bootarg.init.flash_optimized" command to support HDDs on the system.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mcc.sb.vetoed

Severity

NOTICE

Description

This message occurs when the system detects that a MetroCluster (tm) switchback operation has been vetoed, and creates an AutoSupport message for delivery to NetApp technical support for further analysis.

Corrective Action

Enter "metrocluster operation show" to determine the failure reason and take appropriate corrective measures as indicated by the output of this command. Retry the operation following the corrective measure. If the failures persist, or you need further assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER SWITCHBACK VETOED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Correlating tag value used in the AutoSupport message. Other cluster nodes that have detected related events may also have sent AutoSupport messages with this value to NetApp technical support.

callhome.mcc.sbca

Severity

NOTICE

Description

This message occurs when metrocluster switchback continuation agent (SBCA) is run on the disaster site. This happens as part of the metrocluster switchback operation run on the surviving site. This ASUP provides troubleshooting information from the site which is being recovered (disaster hit). If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER SWITCHBACK CONTINUATION AGENT

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.so.vetoed

Severity

NOTICE

Description

This message occurs when the system detects that a MetroCluster (tm) switchover operation has been vetoed, and creates an AutoSupport message for delivery to NetApp technical support for further analysis.

Corrective Action

Enter "metrocluster operation show" to determine the failure reason and take appropriate corrective measures as indicated by the output of this command. Retry the operation following the corrective measure. If the failures persist, or you need further assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER SWITCHOVER VETOED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Correlating tag value used in the AutoSupport message. Other cluster nodes that have detected related events may also have sent AutoSupport messages with this value to NetApp technical support.

callhome.mcc.switchback.complete

Severity

NOTICE

Description

This message occurs when metrocluster switchback operation is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER SWITCHBACK COMPLETE

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.switchback.failed

Severity

EMERGENCY

Description

This message occurs when metrocluster switchback operation has failed. The failure could be partial or complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run 'metrocluster operation show' to determine the failure reason and take appropriate corrective measure. Retry the operation following the corrective measure. If the failures persists or need assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER SWITCHBACK FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.switchover.2min

Severity

NOTICE

Description

This message occurs when MetroCluster(tm) switchover operation is complete and the client outage window has exceeded two minutes. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.switchover.complete

Severity

NOTICE

Description

This message occurs when metrocluster switchover operation is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for METROCLUSTER SWITCHOVER COMPLETE

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mcc.switchover.failed

Severity

EMERGENCY

Description

This message occurs when metrocluster switchover operation has failed. The failure could be partial or complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run 'metrocluster operation show' to determine the failure reason and take appropriate corrective measure. Retry the operation following the corrective measure. If the failures persists or need assistance, contact NetApp technical support

Syslog Message

Call home for METROCLUSTER SWITCHOVER FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.mccip events

callhome.mccip.auso.disabled

Severity

ALERT

Description

This message occurs when automatic unplanned switchover (AUSO) in a MetroCluster(tm) IP configuration is disabled because the mediator mailbox disk is not healthy. If a site failure occurs, a manual switchover will be required to restore data access.

Corrective Action

Use the "storage failover show -fields local-mailbox-disks" command to verify that all nodes in the cluster can access their respective mailbox disks. Use the (privilege: advanced) "storage iscsi-initiator show" command to verify that iSCSI connections to the mediator are up and healthy.

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mccip.collectstats

Severity

NOTICE

Description

This message occurs when MetroCluster IP statistics are collected daily. TCP/IP networking statistics for diagnostic purposes are collected.

Corrective Action

(None).

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mdb events

callhome.mdb.recovery.unsuccessful

Severity

EMERGENCY

Description

This message occurs after an unsuccessful recovery of an inconsistent management database. The message is from the management processes identified by name in the auto-support subject line. The unsuccessful recovery results in the loss of all records contained in the 'job history' and 'rdb statistics' databases. Also, no additional records will be collected until the problem is resolved by NetApp technical support. The affected management process will function normally without these databases.

Corrective Action

Contact NetApp technical support.

Call home for %s WARNING.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mhost events

callhome.mhost.core

Deprecated

Deprecated as of ONTAP 9.3. This event is replaced by the callhome.mhost.coreinfo event.

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for userspace coredump files. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

User space coredump callhome for %s

Parameters

subject (STRING): AutoSupport message subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport message should be generated and delivered even if the AutoSupport configuration is disabled. If "0" then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this coredump AutoSupport message.
core_filename (STRING): Coredump filename to be included in the coredump AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport message via AutoSupport OnDemand.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.mhost.coreinfo

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for userspace coredump files. It contains content relevant to userspace cores. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport

message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

User space coredump callhome for %s

Parameters

subject (STRING): AutoSupport message subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport message should be generated and delivered even if the AutoSupport configuration is disabled. If "0" then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this coredump AutoSupport message.
core_filename (STRING): Coredump filename to be included in the coredump AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport message via AutoSupport OnDemand.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.micro events

callhome.micro.core

Severity

NOTICE

Description

This message occurs when a "micro-core" file is available. A "micro-core" file is a very small and simple binary image representing some state of ONTAP® and can be collected and reported to support. Transmission of a normal core file which can be several gigabytes or larger can take a significant time so isn't done. The subject line provides the filename of the micro- core file which is included as part of a special AutoSupport normally only sent to support. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for MICRO-CORE: %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mlm events

callhome.mlm.array.portOneController

Severity

ALERT

Description

This message occurs when all paths for an array LUN are connected to the same controller on the array. This configuration results in a single point of failure at the array. If an active-passive array is connected at the back end, then all the partner controller's paths go to the alternate controller, which results in a tug of war on mailbox I/O or other events that talk to the partner's array LUNs. If the system is running in Cluster-Mode, use the 'storage errors show' command to detect this error. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Reconfigure your back-end SAN so that array LUNs are presented from controllers in different fault domains on the target array. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for ALL PATHS FOR THE ARRAY LUN ARE CONNECTED TO THE SAME CONTROLLER.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.mlm.lun.OnePath

Severity

ALERT

Description

This message occurs when the logical devices (LDEVs) on an array LUN or group of array LUNs are connected using only one path. A proper configuration requires the LDEVs to be connected to at least two paths; otherwise, there is the potential for data loss caused by a single path failure. If an array LUN is assigned, an EMS message is logged to the console at least once a day indicating that it is a single-path assigned array LUN. If the system is running in Cluster-Mode, use the 'storage errors show' command to identify the error. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Verify the configuration and identify the LDEVs that are connected to only one path. After you identify the LDEVs, change the system configuration to ensure that there are at least two paths to all these LDEVs. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for ARRAY LUN CONNECTED USING ONLY ONE PATH.

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.

callhome.multi events

callhome.multi.dsk.cksum.err

Severity

> EMERGENCY

Description

> This message occurs when checksum verification errors are seen on two or more disks connected to the same HBA port, and the port is not taken offline or the "disk.offline_adapter.enable" option is disabled. This AutoSupport® message and associated EMS messages are issued once for a given port. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

> Contact NetApp technical support for assistance with troubleshooting the reason for the write verification errors. Hardware components might need to be replaced.

Syslog Message

> Call home for %s

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.
> **adapterName** (STRING): Name of the adapter.

callhome.ndo events

callhome.ndo.cr.canceled

Severity

> NOTICE

Description

> This message occurs when the controller replacement operation has been canceled by the administrator. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

> The controller replacement operation on the cluster has been canceled. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

> (None).

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.complete

Severity

> NOTICE

Description

> This message occurs when the controller replacement operation has been completed successfully in the HA group. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

> (None).

Syslog Message

> Call home for CONTROLLER REPLACEMENT COMPLETE

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.dryrun.done

Severity

> NOTICE

Description

> This message occurs when the dry run of the controller replacement operation has completed for the HA pair. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

> (None).

Syslog Message

> Call home for CONTROLLER REPLACEMENT DRY RUN COMPLETE

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.canceled

Severity

> NOTICE

Description

> This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been canceled. If your system is configured to do so, it generates and

transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement NSO operation on the cluster has been canceled. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.complete

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been completed successfully. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for CONTROLLER REPLACEMENT NSO COMPLETE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.mccip.canceled

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been canceled. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement NSO-MCCIP operation on the cluster has been canceled. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

    (None).

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.mccip.complete

Severity

    NOTICE

Description

    This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been completed successfully. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    (None).

Syslog Message

    Call home for CONTROLLER REPLACEMENT NSO-MCCIP COMPLETE

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.mccip.paused.err

Severity

    ALERT

Description

    This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been paused due to an error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    The controller replacement (NSO-MCCIP) operation of the cluster has been paused due to an error. Determine the cause of the error by using the "system controller replace show" command. Correct the cause of the error, and then issue the "system controller replace resume" command to continue the controller replacement of the cluster.

Syslog Message

    (None).

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.mccip.started

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been started. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement NSO-MCCIP operation of the cluster has started. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.paused.err

Severity

ALERT

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been paused due to an error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement (NSO) operation of the cluster has been paused due to an error. Determine the cause of the error by using the "system controller replace show" command. Correct the cause of the error, and then issue the "system controller replace resume" command to continue the controller replacement of the cluster.

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.nso.started

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been started. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement NSO operation of the cluster has started. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.paused.err

Severity

ALERT

Description

This message occurs when the controller replacement operation has been paused due to an error in the HA group. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement operation of the cluster has been paused due to an error. Determine the cause of the error by using the "system controller replace show" command. Correct the cause of the error, and then issue the "system controller replace resume" command to continue the controller replacement of the cluster.

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ndo.cr.started

Severity

NOTICE

Description

This message occurs when the controller replacement operation has started in the HA group. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

The controller replacement operation of the cluster has started. Issue the commands "system controller replace show" and "system controller replace show-details" to see the status of the operation."

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.netif events

callhome.netif.fatal.error

Severity

ERROR

Description

This message occurs when Network Interface Card encountered a fatal error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check for the following EMS message in the EMS log that has the EMS event name "netif.fatal.err". For example: "…netif.fatal.err:crit]: The network device in slot 1 Encountered Fatal Error" The netif.fatal.err EMS message provides the slot number of the NIC device which encountered fatal error. If you need assistance, contact NetApp technical support

Syslog Message

Call home for NETWORK INTERFACE CARD FATAL ERROR.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.netif.init.failed

Severity

ALERT

Description

This message occurs when initialization of a network interface failed due to an unexpected software error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the cabling and network configuration. Collect faulty NIC statistics. If you need assistance, contact NetApp technical support

Syslog Message

Call home for NETWORK INTERFACE INITIALIZATION FAILURE, port %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.netif.uncorEccError

Severity

ALERT

Description

This message occurs when a network interface controller encountered an unrecoverable ECC error. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Review the cabling and network configuration. Replace the faulty NIC device. If you need assistance, contact NetApp technical support

Syslog Message

Call home for NETWORK INTERFACE UNRECOVERABLE ECC ERROR, port %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.netinet events

callhome.netinet.dup.clustIP

Severity

EMERGENCY

Description

This message occurs when a new node that is trying to join the cluster is using the same IP address that is configured on this node's cluster interface. This can prevent data from being served to clients and potentially bring down the entire cluster. This event generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the Ethernet (MAC) address with the "network port show -mac <mac>" command to find network port. Use "network interface show -curr-port <port>" command to identify the cluster interface that is configured with the duplicate IP address. Remove the LIF on the cluster interface of the new node in the cluster network by using the **net int delete -vserver <vserver_name › -lif <lif_name** command. After removing the LIF, assign a new, unique IP address to the cluster interface.

Syslog Message

Call home for DUPLICATE CLUSTER IP.

Parameters

subject (STRING): AutoSupport subject or title for this event.
ipaddr (STRING): Duplicate IP address that was detected on the cluster network.
ethaddr (STRING): Ethernet (MAC) address that uniquely identifies the node configured with the duplicate IP address.

callhome.nht events

callhome.nht.data

Severity

NOTICE

Description

This message occurs when the weekly AutoSupport or 'call home' event is sent for any drive NHT data. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the system. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for DRIVE NHT DATA

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.no events

callhome.no.inodes

Severity

ERROR

Description

This message occurs when a volume is out of inodes, which refer to individual files, other types of files, and directories. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Modify the volume's maxfiles (maximum number of files) to increase the inodes on the affected volume. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for OUT OF INODES

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.

callhome.nse events

callhome.nse.ak.check.failed

Severity

> EMERGENCY

Description

> This message occurs when the node's key-management database lacks authentication keys (AKs) needed by self-encrypting drives that are owned by the node. The affected drives can be FIPS-certified drives (variously called FIPS drives, NetApp Storage Encryption drives, and NSE drives) or non-FIPS-certified self-encrypting drives (SEDs). A FIPS drive or SED is at risk of permanent data loss if authentication fails repeatedly after it is power-cycled. When FIPS keys are missing, operations such as encrypting sanitize and firmware download might also not succeed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

> Display the available keyIDs for encrypting drives using the "security key-manager key query -key-type NSE-AK" command; ONTAP uses these values for all its encrypting drives, whether FIPS/NSE drives or SEDs. Display keyIDs that the drives need using the command "storage encryption disk show", and for FIPS drives, "storage encryption disk show -fips". Each keyID in the disk lists must be present in the key-manager output, except for the default "0x0" (MSID) and "" (null) keyIDs that are not maintained by the key management system. Contact NetApp technical support for assistance. Avoid drive power-cycles and AK modifications until the issue is corrected.

Syslog Message

> Call home for %s, disk "%s".

Parameters

> **subject** (STRING): AutoSupport subject or title for this event.
> **disk** (STRING): Name of the first affected drive detected.

callhome.nvdimm events

callhome.nvdimm.cecc

Severity

> ERROR

Description

> This event occurs when excessive correctable error-correcting code (ECC) memory errors are reported by the NVDIMM. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "system environment sensors show -hidden true" clustershell command to view the NVDIMM sensors values. Contact NetApp technical support for further assistance.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nvdimm.failure

Severity

EMERGENCY

Description

This event occurs when the NVDIMM card has experienced a critical hardware failure. The system may shut down to avoid potential data loss. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the following clustershell commands to get more information about the failure: 1. "event log show -node localhost -event nvdimm*" 2. "system fru-check show -node localhost -ftype nvdimm -instance" Contact NetApp technical support to replace the NVDIMM module.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nve events

callhome.nve.digest.mismatch

Severity

EMERGENCY

Description

This message occurs when the digest of an NetApp Volume Encryption (NVE) or NetApp Aggregate Encryption (NAE) key being restored does not match the expected key digest. Because the key being restored is not the same key expected by the system, the volume associated with the NVE or NAE key will not be able to be onlined, resulting in data loss. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for %s. key ID: %s, Key Server: %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
keyId (STRING): Key ID of the key being restored that had the digest mismatch.
keyServer (STRING): Address or name of the key server from which the key is being restored.

callhome.nvme events

callhome.nvme.exhausted

Severity

ALERT

Description

This message occurs when a directly attached NVMe module has worn out and is at the end of its write life. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact technical support for assistance with possible replacement of the module.

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
serial (STRING): Serial number of the NVMe device.
model (STRING): Model number of the NVMe device.
slot_subslot (STRING): PCI slot/subslot of the NVMe device.

callhome.nvme.offline

Severity

ALERT

Description

This message occurs when a directly attached NVMe module goes offline. When a module goes offline, it has either had a critical failure or is no longer reliable. In either case, the card is no longer functioning properly and was taken offline. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact technical support for assistance with possible replacement of the module.

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
serial (STRING): Serial number of the NVMe device.
model (STRING): Model number of the NVMe device.
slot_subslot (STRING): PCI slot/subslot of the NVMe device.
code (LONGINTHEX): Bit-encoded error that caused the event.

callhome.nvmem events

callhome.nvmem.volt.hi

Severity

ALERT

Description

This message occurs when the sensor for the Non-Volatile memory (NVMEM) card lithium battery has an excessively high voltage. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

First, correct any environmental or battery problems. If the problem continues, replace the controller module. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for NVMEM VOLTAGE HIGH

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nvmem.volt.lo

Severity

ALERT

Description

This message occurs when the sensor for the Non-Volatile memory (NVMEM) card lithium battery has an excessively low voltage. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

First, correct any environmental or battery problems. If the problem continues, replace the controller module. If you need assistance, contact NetApp technical support.

Call home for NVMEM VOLTAGE LOW

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nvram events

callhome.nvram.cecc

Severity

ERROR

Description

This message occurs when excessive correctable error-correcting code (ECC) memory errors are reported by the NVRAM complex. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "system environment sensors show -hidden true" cluster shell command to view the current "NV Correctable ECC count" and "NV Correctable ECC rate" values. Contact NetApp technical support for further assistance.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nvram.failure

Severity

EMERGENCY

Description

This message occurs when the NVRAM card has experienced a critical hardware failure. The system will shut down to avoid potential data loss. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support to replace the NVRAM card.

Syslog Message

Call home for NVRAM FAILURE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.nvram.iofs.fail

Severity

ERROR

Description

This message occurs in a FireStorm instance when a read or write to its nonvolatile memory (NVRAM) device fails. The instance will panic. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Restart the FireStorm instance. If the issue persists, contact NetApp technical support.

Syslog Message

Call home for NVRAM failure at %s, I/O type %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
io_type (STRING): Type of failed operation (read or write).
tag (STRING): Supplemental event identifier.
error (LONGINT): I/O error code.

callhome.nvram.openfs.fail

Severity

ERROR

Description

This message occurs when a FireStorm instance is unable to open its nonvolatile memory (NVRAM) device. The instance will panic.

Corrective Action

Restart the instance. If the issue persists, contact NetApp technical support.

Syslog Message

Call home for open failure at %s on NVRAM file %s, error %d.

Parameters

subject (STRING): AutoSupport subject or title for this event.
nvram_backing (STRING): Name of the NVRAM backing file.
fileio_error (LONGINT): Open error code.

callhome.okm events

callhome.okm.sync.needed

Severity

ALERT

Description

This message occurs when the cluster has reached an inconsistent state with respect to the onboard key hierarchy. This is an alert that the "security key-manager onboard sync" command should be run on the local cluster to prevent any future usage failures with onboard key management. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to Netapp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for CLUSTER OKM SYNC NEEDED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ondemand events

callhome.ondemand.invoke

Severity

NOTICE

Description

This message normally occurs when NetApp technical support has remotely requested an AutoSupport or 'call home' message of type TEST. This request is accomplished by use of the AutoSupport OnDemand Server (AODS) service. The intent of this AutoSupport is to collect only the information necessary to understand the configuration of the system and quickly deliver it. For this reason, the data collection is bounded by time taken to collect data and quantity of data collected. With less data collected, delivery over the internet is expected to be faster. The overall process from remote activation to delivery should be measurable in minutes. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport. If set, this AutoSupport is delivered to this alternate destination.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.ondemand.invoke.all

Severity

NOTICE

Description

This message normally occurs when NetApp technical support has remotely requested an AutoSupport or 'call home' message of type ALL. This request is accomplished by use of the AutoSupport OnDemand Server (AODS) service. The intent of this AutoSupport is to collect more data to aid in problem resolution. The collection is bounded by time and size limits but these are much larger as compared to most other AutoSupport messages. Collecting a larger amount of AutoSupport data can help support personnel diagnose difficult problems. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport. If set, this AutoSupport is delivered to this alternate destination.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.ondemand.perf.snap

Severity

NOTICE

Description

This message normally occurs when NetApp technical support has remotely requested an AutoSupport or 'call home' message of type PERFORMANCE. This request is accomplished by use of the AutoSupport OnDemand Server (AODS) service. The intent of this AutoSupport is to collect statistics and other information to aid in understanding operations and other usage analysis related to networking, storage, memory and processor. This analysis might result in recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the system. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

(None).

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport. If set, this AutoSupport is delivered to this alternate destination.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.partner events

callhome.partner.down

Severity

EMERGENCY

Description

This message occurs when the storage failover partner is down and takeover cannot begin. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for PARTNER DOWN, TAKEOVER IMPOSSIBLE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.performance events

callhome.performance.archive

Severity

NOTICE

Description

This message occurs when you invoke an AutoSupport for performance archives. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Performance archive callhome for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this AutoSupport message. If this is set, this AutoSupport message is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If 0 then obey the normal "state" and "support" flags. If this is "1", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
case_number (STRING): Case number to be associated with this performance archive AutoSupport message.
aod_initiated (INT): This flag indicates that NetApp technical support has remotely requested for this AutoSupport via AutoSupport OnDemand.
start_date (STRING): Date at which data collection will begin.
end_date (STRING): Date at which data collection will end.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.
aod_req_id (STRING): AOD request ID

callhome.performance.data

Severity

NOTICE

Description

This message occurs when the weekly AutoSupport or 'call home' event is sent for performance data. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the system. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for PERFORMANCE DATA

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.performance.snap

Severity

NOTICE

Description

This message occurs some minutes after a reboot or storage takeover operation occurs so that performance information can be sent. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the system. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations.

Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for PERFORMANCE SNAPSHOT

Parameters

subject (STRING): AutoSupport subject or title for this event.
URI (STRING): Alternate destination for this ASUP. If this is set, this ASUP is delivered to this alternate destination.
force (INT): This flag indicates this AutoSupport should be generated and delivered even if the AutoSupport configuration is disabled. If zero then obey the normal "state" and "support" flags. If this is "one", then ignore the "state" and "support" configuration and deliver as if both "state" and "support" are enabled.
sequence (LONGINT): Sequence number to use to generate this Autosupport. Use value zero to auto-generate or a value higher than last used ASUP sequence number.

callhome.pool events

callhome.pool.aggr.noncomp

Severity

ALERT

Description

This message occurs when an aggregate does not comply with the current Capacity Pool entitlement, as determined by the Licensing Manager. In an HA configuration, noncompliant aggregates are prevented from being sent home during an HA takeover/giveback situation. In a non-HA configuration, these aggregates cannot be brought online if they are already offline. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "system license license-manager check" command to determine whether the License Manager is accessible. Use the "system license show-aggregates -compliant false" command to find all aggregates that do not comply. From the web interface of the ONTAP® Select Deploy® instance, check the Capacity Pool licensing status, and ensure that sufficient capacity remains within the capacity pool used by this instance of ONTAP. If the capacity is insufficient, reduce the usage by instances of ONTAP that use the pool (for example, by deleting aggregates). If no reduction is possible, Contact NetApp technical support..

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.raid events

callhome.raid.adp.disabled

Severity

NOTICE

Description

This message occurs when auto-partitioning for root aggregate creation is disabled on a system. When auto-partitioning is disabled, the root aggregate is created on whole disks. Systems with a root aggregate on partitioned disks can devote more space to non-root aggregates than systems with a root aggregate on whole disks. If this message occurs after root aggregate creation, then further partitioning of the disks is disabled.

Corrective Action

If the system is already initialized with root aggregate on partitioned disks, ONTAP will try to re-enable auto-partitioning after the system boots up and the root aggregate is online. The event raid.autoPart.enabled will be logged when auto-partitioning is re-enabled. To create a root aggregate on partitioned disks: 1. Halt the controller. 2. Replace any failed internal disks (see the "reason" field in the EMS message). 3. Reboot the controller. 4. Re-initialize the system. If this message is seen after the system initialization and the root aggregate is already created on partitioned disks, then the system will continue to function, as follows: 1. Expansion of existing aggregates created from partitioned disks may not work. 2. If a disk fails in a RAID group created out of partitioned disks, then a spare will fail to be partitioned and disk reconstruction will not start. 3. If a disk is marked for predictive failure in a RAID group created out of partition disks, then a spare will fail to be partitioned and the sick disk copy will not start. 4. If disks are available, then manually partition the disks and keep them as spares. 5. If you were previously directed to disable ADP by NetApp technical support, reach out to NetApp technical support to re-enable ADP.

Syslog Message

Disk auto-partitioning is disabled on this system: %s.

Parameters

subject (STRING): Reason that auto-partitioning was disabled.

callhome.raid.no.recover

Severity

EMERGENCY

Description

This message occurs when too many errors have been detected by the RAID (Redundant Array of Inexpensive Disks) software protection and recovery is not possible. The detected errors could be related to checksum calculations, lost write detection and on disk medium errors in combinations with disk and NVRAM failures. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Immediately contact NetApp technical support for assistance to help diagnose the failures. If the diagnosis points to malfunctioning hardware components, these should be replaced.

Syslog Message

Call home for RAID DETECTED UNRECOVERABLE ERRORS

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.raid.over.max

Severity

ALERT

Description

This message occurs when the maximum raw capacity of the file system (aggregate or RAID file system) is reached for this software release. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for Exceeded maximum raw capacity

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.raidtree events

callhome.raidtree.assim

Severity

EMERGENCY

Description

This message occurs when an aggregate experiences a configuration corruption error during assimilation of aggregate structures. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for RAIDTREE ASSIMILATION FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot events

callhome.reboot

Severity

NOTICE

Description

This message occurs after an appliance reboot—the appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If reboots continue to occur, contact NetApp technical support.

Syslog Message

Call home for REBOOT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.agentwatchdog

Severity

ALERT

Description

This message occurs when the system experiences an internal hardware watchdog timer reset. The system reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience watchdog timer resets, contact NetApp technical support.

Syslog Message

Call home for REBOOT (agent watchdog reset).

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.fw

Severity

NOTICE

Description

This message occurs when the appliance reboots after loading firmware—the appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an

AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REBOOT (after entering firmware)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.giveback

Severity

NOTICE

Description

This message occurs when the node boots to normal operations because of a successful storage giveback from the partner. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REBOOT (after giveback)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.glitch

Severity

NOTICE

Description

This message occurs when the appliance halts and reboots due to problems with inconsistent power. The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience 'power glitch' reboots, contact NetApp technical support.

Syslog Message

Call home for REBOOT (power glitch)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.halt

Severity

NOTICE

Description

This message occurs when the appliance reboots after you use the 'halt' command to shut it down. The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REBOOT (halt command)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.ioxm.removal

Severity

NOTICE

Description

This message occurs when the appliance halts and reboots due to the removal of the IOXM without powering down the appliance first. The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Do not remove the IOXM without powering down the appliance first.

Syslog Message

Call home for REBOOT (IOXM removal)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.panic

Severity

ALERT

Description

This message occurs when the appliance reboots after a panic (also known as a 'system crash'). The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for REBOOT (panic)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.poweron

Severity

NOTICE

Description

This message occurs when the appliance reboots when it is powered on. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience 'power on' reboots, contact NetApp technical support.

Syslog Message

Call home for REBOOT (power on)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.reboot

Severity

NOTICE

Description

This message occurs when you reboot the appliance with the 'reboot' command. The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REBOOT (reboot command)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.sk.halt

Severity

NOTICE

Description

This message occurs when the system is halted automatically to prevent damage or possible loss of data. The system reports this event after the reboot is complete. An internal halt might be caused by one of the following reasons: 1. If a disk drive fails and there are no available spares, the system enters degraded mode. The appliance halts automatically to prevent a double disk drive failure, and possible loss of data, if it runs in degraded mode for the time interval given by the following command: "storage raid-options show -name raid.timeout -node local" The default timeout is usually 24 hours. If a spare disk drive becomes available while the system is running in degraded mode, the system immediately begins rebuilding the failed disk drive. 2. The system also halts automatically if the environmental conditions, such as temperature or power, are not within the safe operating limits or are inadequate to prevent possible damage. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience 'internal halt' reboots, contact NetApp technical support.

Syslog Message

Call home for REBOOT (internal halt)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.sk.reboot

Severity

NOTICE

Description

This message occurs when you halt, reset, or turn off power to the appliance without completing an orderly halt or shutdown sequence before rebooting. The appliance reports this event after the reboot is complete. To keep your data safe, always use the 'halt' command to halt the appliance, and then wait for an orderly halt or shutdown to be complete before you power down the appliance or perform any hardware maintenance. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience 'internal reboot' reboots, contact NetApp technical support.

Syslog Message

Call home for REBOOT (internal reboot)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.sp.rst

Severity

NOTICE

Description

This message occurs when the appliance reboots when it has been reset through the Service Processor (SP) 'system reset' command. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REBOOT (sp system reset)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.takeover

Severity

NOTICE

Description

This message occurs when the partner appliance storage is taken over successfully by this appliance. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you need assistance, contact NetApp technical support.

Syslog Message

Call home for PARTNER REBOOT (CONTROLLER TAKEOVER)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.takeover.p

Severity

NOTICE

Description

This message occurs when the partner appliance storage is taken over successfully by this appliance. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you need assistance, contact NetApp technical support.

Syslog Message

Call home for PARTNER REBOOT (CONTROLLER TAKEOVER ON PANIC)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.unknown

Severity

NOTICE

Description

This message occurs after an appliance reboot—the appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If reboots continue to occur, contact NetApp technical support.

Syslog Message

Call home for REBOOT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.reboot.watchdog

Severity

ALERT

Description

This message occurs when the appliance experiences an internal hardware watchdog timer reset. The appliance reports this event after the reboot is complete. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If you continue to experience watchdog timer resets, contact NetApp technical support.

Syslog Message

Call home for REBOOT (watchdog reset)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.rnode events

callhome.rnode.splog

Severity

NOTICE

Description

This messages occurs when a new set of log files has been collected from a Service Processor (SP) of one or more non-operational nodes in the cluster. When an abnormal node reboot is detected by its SP, log files are created. When this node is operational again, the SP log files are collected and included in subsequent AutoSupport messages sent by the node. In cases where nodes cannot return to operation immediately, the SP's log files are collected by another node in the cluster and sent via this AutoSupport message. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for REMOTE NODE SP LOG %s %s %s %s %s %s %s %s %s %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
node1_down_fn (STRING): Node-specific filename for the downfiler splog from the first node. If NULL is specified, this downfiler splog is not available.
node1_latest_fn (STRING): Node-specific filename for the latest splog from the first node.
node2_down_fn (STRING): Node-specific filename for the downfiler splog from the second node. If NULL is specified, this downfiler splog is not available.
node2_latest_fn (STRING): Node-specific filename for the latest splog from the second node.
node3_down_fn (STRING): Node-specific filename for the downfiler splog from the third node. If NULL is specified, this downfiler splog is not available.
node3_latest_fn (STRING): Node-specific filename for the latest splog from the third node.
node4_down_fn (STRING): Node-specific filename for the downfiler splog from the fourth node. If NULL is specified, this downfiler splog is not available.
node4_latest_fn (STRING): Node-specific filename for the latest splog from the fourth node.
node5_down_fn (STRING): Node-specific filename for the downfiler splog from the fifth node. If NULL is specified, this downfiler splog is not available.
node5_latest_fn (STRING): Node-specific filename for the latest splog from the fifth node.

callhome.root events

callhome.root.vol.recovery.reqd

Severity

    EMERGENCY

Description

    This message occurs when the root volume is not working properly and its recovery is required. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    Contact NetApp technical support to obtain the root volume recovery procedures and further assistance.

Syslog Message

    Call home for ROOT VOLUME NOT WORKING PROPERLY: RECOVERY REQUIRED.

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.rtc events

callhome.rtc.battery.low

Severity

    ERROR

Description

    This message occurs when the voltage for the Real-Time Clock (RTC) battery is low. The message is repeated once every hour until you replace the battery. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    Replace the RTC battery as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

    Call home for RTC BATTERY LOW

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.sas events

callhome.sas.init.failed

Severity

    ERROR

Description

This message occurs when the SAS adapter fails to initialize the link. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp Global Services and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the adapter is in use, check cabling and connected equipment. If the adapter is connected to storage shelves, check connected I/O modules (IOM).

Syslog Message

Callhome for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.
adapterName (STRING): Name of the associated SAS host bus adapter.

callhome.sb events

callhome.sb.pp.fcp.failo.err

Severity

ERROR

Description

This message occurs when the persistent port feature is not working during non-disruptive operations (NDO) such as takeover or giveback due to configuration errors. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sb.pp.fcp.init.err

Severity

ERROR

Description

This message occurs when persistent port object for a SAN FCP LIF fails to be configured during a LIF create operation. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade events

callhome.sblade.import.susp

Severity

ERROR

Description

This message occurs when LUN import cannot resume after takeover/giveback. All LUN import sessions have been suspended. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for LUN IMPORT SESSIONS SUSPENDED

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multinode AutoSupport.

callhome.sblade.lif.init

Severity

NOTICE

Description

This message occurs during Vserver initialization when partially initialized volumes do not complete initialization within the specified maximum timeout value. On timer expiration the Vserver data LIFs are brought online regardless of the volume initialization status. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for SCSIBLADE LIF INIT TIMEOUT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.lu.resync.to

Severity

EMERGENCY

Description

This message occurs when the SCSI target internal resynchronization of a LUN times out. This LUN is unavailable until one or more nodes that could not complete the internal resynchronization are taken over and given back or rebooted. If your system is configured to do so, it generates and transmits an AutoSupport® (or "call home") message. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support for further assistance.

Syslog Message

Call home for SCSIBLADE LU RESYNC TIMEOUT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.lu.rst.hung

Severity

EMERGENCY

Description

This message occurs when the SCSI target cannot complete an internal reset of a LUN. This LUN is unavailable until one or more nodes that could not complete the internal reset are taken over and given back or rebooted. If your system is configured to do so, it generates and transmits an AutoSupport® (or "call home") message. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support for further assistance.

Syslog Message

Call home for SCSIBLADE LU INTERNAL RESET HUNG

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.mgmt.wedged

Severity

EMERGENCY

Description

This message occurs when the SAN management plane encounters an error that prevents further SAN management commands from being processed. This usually means that all the threads of one (or more) of the SAN management plane modules are stuck. SAN configuration changes on this node and other nodes in the cluster will fail with timeout errors until corrected. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for SCSIBLADE MGMT WEDGED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.prop.fail

Severity

EMERGENCY

Description

This message occurs when an internal SAN management command fails. SAN management commands is not able to be completed for the Vserver which fails until the node is rebooted. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Refer to Knowledgebase article: 2017459 for recovery instructions.

Syslog Message

Call home for SCSIBLADE PROPOSAL FAIL

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.unavailable

Severity

ERROR

Description

This message occurs when the node has lost connectivity with the majority of the cluster and is unable to recover automatically. When this occurs both FCP and iSCSI traffic have been disabled on this node. Manual recovery is required to come back into service. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Reboot the node, and if the node is waiting for giveback then perform a giveback.

Syslog Message

Call home for SCSIBLADE SERVICE UNAVAILABLE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sblade.vol.ev.lost

Severity

ERROR

Description

This message occurs when LUNs (Logical Unit Numbers) in a volume are not accessible on all paths. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support for further assistance.

Syslog Message

Call home for SCSIBLADE VOLUME EVENT LOST

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi node ASUP.

callhome.sblade.vs.op.tt

Severity

ERROR

Description

This message occurs when a mangement command or other internal operation takes too long for a LUN (Logical Unit Number). When this situation occurs, the corresponding Vserver cannot handle any other management changes for the LUN until this condition no longer persists. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Call NetApp technical support immediately for further assistance.

Syslog Message

Call home for SCSIBLADE VSERVER OPERATION TIMEOUT

Parameters

subject (STRING): AutoSupport subject or title for this event.

epoch (STRING): Identifying tag for multi node ASUP.

callhome.scsi events

callhome.scsi.tgt.misconfig

Severity
ERROR

Description
This message occurs when a LUN (Logical Unit Number) mapping or igroup type misconfiguration has been detected when the cluster interconnect has transitioned from down to up. The detected misconfiguration problems will typically include cases of having a LUN on each storage controller mapped to the same LUN for the same initiator. When the cluster interconnect is down, LUN mapping changes are prevented unless overridden. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action
Run the "lun config_check" command which will list out the problems that caused this event and resolve this problem list. If you need assistance, contact NetApp technical support.

Syslog Message
Call home for FILER SCSI TARGET MISCONFIGURED

Parameters
subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk events

callhome.sdsk.admin

Severity
NOTICE

Description
This message occurs when you fail a hot spare disk drive.

Corrective Action
(None).

Syslog Message
Call home for SPARE DISK ADMIN REMOVED

Parameters
subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.fault

Severity

ERROR

Description

This message occurs when a spare disk drive fails. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.label

Severity

ERROR

Description

This message occurs when a disk drive fails due to unexpected RAID metadata. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SPARE DISK BAD LABEL

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.label.v

Severity

ERROR

Description

This message occurs when a disk drive fails due to a version number in its RAID metadata that is inconsistent with the operating system version installed. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SPARE DISK BAD LABEL VERSION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.missing

Severity

ERROR

Description

This message occurs when the system detects that a spare disk drive is not in a loop or is missing. This might also be due to a failed disk drive that is still in the chassis awaiting replacement. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate and replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SPARE DISK MISSING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.noio

Severity

ERROR

Description

This message occurs when disk drive device commands to a hot spare disk drive are failing with link errors, adapter errors, or timeouts. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SPARE DISK NOT RESPONDING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sdsk.shrank

Severity

ERROR

Description

This message occurs when a hot spare disk drive fails because its raw capacity was downsized due to a firmware change. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose red and amber LED fault lights are NOT lit. Replace the failed disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SPARE DISK RAWSIZE SHRANK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ses events

callhome.ses.drive.missing

Severity

ERROR

Description

This message occurs when the storage adapter detects a disk on the Fibre Channel loop or the SCSI bus, but enclosure services in the disk shelf does not report a disk with that address. This error indicates that the disk took an address other than what the disk shelf should have provided, or that enclosure services in the disk shelf cannot be contacted for address information. (Note: If the message "ses.drive.possShelfAddr" subsequently appears, follow the corrective actions in that message.) In this condition, the SCSI Enclosure Services (SES) process in the system might be unable to perform certain operations on the disk, such as setting failure LEDs or detecting disk swaps. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the disk is not part of an active aggregate or volume, pull out the disk and push it back into the slot to ensure that the disk is in place. If the problem persists, insert a spare disk into the slot. If the problem is then gone, replace the original disk with the spare one. If the problem occurs to multiple disks on the same loop, check the I/O modules at the back of the disk shelves on that loop for errors.

Syslog Message

Call home for SES: DRIVE MISSING

Parameters

subject (STRING): AutoSupport subject or title for this event.
ChannelName (STRING): Channel the disk shelf is on.

LoopIds (STRING): Loop or SCSI IDs of the missing disks.

callhome.sfo events

callhome.sfo.downrev

Severity

ERROR

Description

This message occurs when the appliance software boots and detects out-of-date motherboard firmware, which can cause serious issues. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Upgrade the motherboard open firmware (OFW) version to the recommended version for this software and appliance as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for HA GROUP DOWNREV BOOT FIRMWARE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.giveback

Severity

NOTICE

Description

This message occurs when this appliance successfully completed a giveback of the storage to its partner appliance. The partner appliance is expected to be performing normal operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for CONTROLLER GIVEBACK COMPLETE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.miscount

Severity

ERROR

Description

This message occurs when each partner in the High Availability (HA) storage configuration detects a different number of disk drives than its partner. This error is typically transient, and can occur for the following reasons: 1) A disk drive failed. 2) A disk drive was replaced. 3) One or more disk drives were added. The problem is usually corrected automatically within 60 seconds, requiring no action from you. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the problem persists, check the cabling on or reseat any replaced or added disk drives, and check for failed disk drives. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for HA GROUP ERROR: DISK/SHELF COUNT MISMATCH

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.personality

Severity

ALERT

Description

This message occurs when an All Flash Optimized node in a high-availability (HA) configuration detects its partner having a different personality setting. This mismatch might be due to either one node not being configured as All Flash Optimized, or the nodes being configured for different personalities (performance optimized or capacity optimized). Storage failover might be at risk of not functioning properly. HDDs taken over during failover events might not be able to serve data. If your system is configured to do so, it generates and transmits an AutoSupport® (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

An All-Flash Optimized node only recognizes SSDs and ignores HDDs. For the HA pair to be considered All-Flash Optimized, both nodes must be configured with the same personality (performance optimized or capacity optimized). Use the "system node show -instance" command to display each node's personality and optimization settings. If both nodes are configured with the same personality, all HDDs should be removed from the HA pair, because they will not be able to serve data. Contact NetApp technical support for assistance.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover

Severity

ALERT

Description

This message occurs when automatic takeover of the cluster partner is successful. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Address the issue that caused the takeover, then restore the cluster partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.failed

Severity

ALERT

Description

This message occurs when automatic takeover of the cluster partner is not successful. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Determine why the takeover did not succeed. Restore the cluster partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.halt

Severity

NOTICE

Description

This message occurs when takeover of the HA partner is successful. The takeover occurred because of an administrative halt on the HA partner. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and

resolution.

Corrective Action

Address the issue that caused you to halt the HA partner and then restore it to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER COMPLETE HALT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.m

Severity

NOTICE

Description

This message occurs when manual takeover of the cluster partner is successful.

Corrective Action

Address the issue that caused you to take over the cluster partner manually, then restore the cluster partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER COMPLETE MANUAL

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.m.dr

Severity

ERROR

Description

This message occurs when manual takeover of the High Availability (HA) partner for disaster recovery (DR) is successful. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Address the issue that required you to perform a DR takeover of the HA partner. After the issue is resolved, restore the HA partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER COMPLETE MANUAL(DR)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.panic

Severity

EMERGENCY

Description

This message occurs when automatic takeover of the HA partner is successful. The controller takeover occurred because of a HA partner software failure or panic.

Corrective Action

Address the cause of the cluster partner software failure or panic, then restore the cluster partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER COMPLETE PANIC

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.takeover.reboot

Severity

NOTICE

Description

This message occurs when takeover of the HA partner is successful. The takeover occurred because of an administrative reboot on the HA partner. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Address the issue that caused you to reboot the HA partner and then restore it to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for CONTROLLER TAKEOVER COMPLETE REBOOT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sfo.to.comm.loss

Severity

EMERGENCY

Description

This message occurs when automatic takeover of the HA partner is successful. The controller takeover occurred because of a HA partner lost communication. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Address the cause of the cluster partner lost communication, then restore the cluster partner to normal operations. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf events

callhome.shlf.fan

Severity

EMERGENCY

Description

This message occurs when the system detects faulty hardware on the disk shelf, such as a fan, power supply unit (PSU), or failing temperature sensor. The problem might be environmental (temperature or faulty power) or hardware-related. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHELF COOLING UNIT FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf.fan.warn

Severity

ERROR

Description

This message occurs when the system detects faulty hardware on the disk shelf, such as a fan, power supply unit (PSU), or failing temperature sensor. The problem might be environmental (temperature or faulty power) or hardware-related. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHELF COOLING UNIT FAILED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf.fault

Severity

ERROR

Description

This message occurs when the system detects faulty hardware on the disk shelf, such as a fan, power supply, or failing temperature sensor. The problem might be environmental (temperature or faulty power) or hardware-related. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C to 24C (65F to 75F). If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHELF_FAULT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf.overtemp

Severity

ERROR

Description

This message occurs when the system detects a disk shelf problem. The problem might be due to environmental issues, such as temperature or faulty power, or by faulty hardware, such as a fan, power supply, or failing temperature sensor. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Evaluate the environment in which your system is operating and identify whether the problem is environmental or hardware-related. Your system should be in a room with an operating temperature of 18C

to 24C (65F to 75F). If faulty hardware caused the error, such as a bad temperature sensor or a broken fan, replace the faulty part as soon as possible. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf.power.intr

Severity

ERROR

Description

This message occurs when your system detects that a disk shelf power supply reported either a sustained loss of DC voltage output for about 20 seconds or a failure condition. This issue can occur for a number of reasons: 1. The power supply was turned off or unplugged. 2. The power to the server room failed or fluctuated. 3. The disk shelf power supply malfunctioned and should be replaced. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If necessary, replace the disk shelf power supply. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHELF POWER INTERRUPTED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.shlf.ps.fault

Severity

ERROR

Description

This message occurs when your system detects that a disk shelf power supply reported a loss of DC voltage. This might be a transient issue. This issue can occur for a number of reasons: 1. The power supply was turned off or unplugged. 2. The power to the server room failed or fluctuated. 3. The shelf power supply malfunctioned and should be replaced. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If necessary, replace the shelf power supply. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHELF POWER SUPPLY WARNING

callhome.shutdown events

callhome.shutdown.pending

Severity

ALERT

Description

This message occurs when a disk drive fails but there are no suitable spares available for reconstruction. To protect your data, the system enters degraded mode. The system halts automatically to prevent a double disk drive failure, and possible loss of data, if it runs in degraded mode for the time interval given by the following command: "storage raid-options show -name raid.timeout -node local" The default timeout is usually 24 hours. If a spare drive becomes available while the system is running in degraded mode, the system immediately begins rebuilding the failed drive. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

To prevent the system from shutting down in 24 hours, perform either of the following actions: 1. Add a spare disk drive suitable for reconstructing the failed disk drive. 2. Change the timeout period with the following command: "storage raid-options modify -name raid.timeout -node local -value X" where X equals the number of hours for the new timeout value. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SHUTDOWN PENDING (degraded mode)

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sm events

callhome.sm.vsdr.break.fail

Severity

ERROR

Description

This message occurs when a break operation on a SnapMirror® relationship that is a part of VserverDR fails. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for additional information.

Syslog Message

Call home for SNAPMIRROR BREAK FAILURE.

Parameters

subject (STRING): AutoSupport subject or title for this event.
SourceVserver (STRING): Source Vserver of the SnapMirror relationship.
DestVserver (STRING): Destination Vserver of the SnapMirror relationship.

callhome.snapmirror events

callhome.snapmirror.oos

Severity

NOTICE

Description

This message occurs when a sync-granular consistency group (CG) transitions from in-sync status to out-of-sync status. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Look for the sm.syncmirror.out.of.sync event concerning this relationship in the EMS log file. The event provides the reason why the relationship has been transitioned to out-of-sync and an appropriate corrective action, if applicable.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.snapmirror.oos.pers

Severity

ALERT

Description

This message occurs when a sync-granular consistency group (CG) relationship transitions from in-sync status to out-of-sync status and remains out-of-sync for longer than expected. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Look for the sm.syncmirror.out.of.sync event concerning this relationship in the EMS log file on source node of SnapMirror relationship. The event provides the reason why the relationship has been transitioned to out-of-sync. Verify network connections between the primary cluster and the secondary cluster. Check for error information in the "snapmirror show" command output for the relationship. Quiesce the relationship if the condition cannot be addressed immediately.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sp events

callhome.sp.hbt.missed

Severity

NOTICE

Description

This message occurs when ONTAP® does not receive an expected "heartbeat" signal from the Service Processor (SP). Along with this message, log files from SP will be sent out for debugging. ONTAP will reset the SP to attempt to restore communication. The SP will be unavailable for up to two minutes while it reboots.

Corrective Action

Contact NetApp technical support.

Syslog Message

Call home for SP HBT MISSED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sp.hbt.stopped

Severity

ALERT

Description

This message occurs when ONTAP® is no longer receiving heartbeats from the Service Processor (SP). Depending on the hardware design, the system may continue to serve data or may determine to shut down to prevent data loss or hardware damage. The system continues to serve data, but because the SP might not be working, the system cannot send notifications of down appliances, boot errors, or Open Firmware (OFW) Power-On Self-Test (POST) errors. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the system has shut down, attempt a hard power cycle: Pull the controller out from the chassis, push it back in then power on the system. Contact NetApp technical support if the problem persists after the power cycle, or for any other condition that may warrant attention.

Syslog Message

Call home for SP HBT STOPPED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.spares events

callhome.spares.low

Severity

ERROR

Description

This message occurs when one or more RAID groups do not have an eligible spare disk drive available in case of a disk drive failure. An eligible spare disk drive must be the correct size and capacity, and must be in the appropriate pool. If a disk drive fails without a spare to reconstruct on, the system enters degraded mode. The system halts automatically to prevent a double disk drive failure, and possible loss of data, if it runs in degraded mode for the time interval given by the following command: "storage raid-options show -name raid.timeout -node local" The default timeout is usually 24 hours. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Add suitable spare disk drives for all RAID groups to ensure that you have at least one spare disk drive. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for %s: %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
rg (STRING): RAID groups on which spares low is identified.

callhome.spm events

callhome.spm.process.maxexit

Severity

ERROR

Description

This message occurs when a subsystem is not fully operational after one or more restarts and a restart threshold has been reached by the Service Process Manager (SPM). The inconsistency might be caused by external events such network data, previous configuration changes, software changes, firmware changes, or hardware changes. The message should not occur more then once per day. The underlying subsystem might be related to one or more operational systems such as management, authentication, network access, and so on. Performance issues and operational difficulties might have been exhibited before this event. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If necessary, undo recent changes to the system and to external services that the system uses to stabilize operations, and then contact NetApp technical support. They will help to identify the underlying issue and whether a software upgrade has been made available to resolve the issue. You might need to isolate the system from any suspect network traffic.

Syslog Message

Call home for MAXIMUM EXITS THRESHOLD OF A PROCESS MANAGED BY SPM IS REACHED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.stackmon events

callhome.stackmon.recon.failed

Severity

ALERT

Description

This message occurs when the system fails to assign the correct stack-id to one or more disk shelves. The shelf and disk names might not correctly reflect the storage topology. Shelf and disk operations might fail if multiple disks share the same name. If your system is configured to do so, it generates and transmits an AutoSupport(tm) (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Verify that the storage topology is correct. The (privilege: advanced) "storage stackmon repair" command can be used to diagnose and repair the issue. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.svm events

callhome.svm.mig.abort.fail

Severity

ERROR

Description

This message occurs when a Vserver migration failed to be aborted. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.aborted

Severity

NOTICE

Description

This message occurs when a Vserver migration is successfully aborted. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.clean.fail

Severity

ERROR

Description

This message occurs when the cleanup phase of a Vserver migration has failed. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.complete

Severity

NOTICE

Description

This message occurs when a Vserver migration has completed. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.fail

Severity

ERROR

Description

This message occurs when a Vserver migration fails. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.pause.fail

Severity

ERROR

Description

This message occurs when a Vserver migration failed to be paused. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.paused

Severity

NOTICE

Description

This message occurs when a Vserver migration is paused. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.pstCut.fail

Severity

ERROR

Description

This message occurs when the post-cutover phase of a Vserver migration has failed. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.setCfg.fail

Severity

ERROR

Description

This message occurs when the setup configuration phase of a Vserver migration has failed. If the system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svm.mig.started

Severity

NOTICE

Description

This message occurs when a Vserver migration has started successfully. If the system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s

Parameters

subject (STRING): AutoSupport subject or title for this event.
epoch (STRING): Identifying tag for multi-node AutoSupport.

callhome.svo events

callhome.svo.prevented

Severity

ERROR

Description

This message occurs when a write to a SnapValidator enabled volume failed to be validated and was rejected by the server. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the configuration of the server to insure correct 'svf_offset' setting on the lun (if applicable) and correct use of svo_options. This includes making sure that RMAN data is not being stored on a volume that does not have the svo_allow_rman option set. If the server appears to be correctly configured, the problem may exist at any point between Oracle client and the server. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SNAPVALIDATOR ERROR PREVENTED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sync events

callhome.sync.mirror.nospc

Severity

ALERT

Description

This message occurs when ONTAP® cannot create a new base snapshot in a SyncMirror aggregate after multiple attempts. Systems using RAID SyncMirror require aggregate snapshots for normal operation. Periodically, ONTAP creates a new base snapshot with a name similar to "mirror_resync.1201023128(filer_name)." Once created, ONTAP deletes the old base snapshot. The base snapshot is used to optimize resynchronization when one plex goes offline. Short-lived circumstances when a new aggregate snapshot cannot be created are not unusual. ONTAP initiates background processes to reclaim space and allow creation of new aggregate snapshots. This message is issued when ONTAP cannot create a new base snapshot after waiting a reasonable time. If the aggregate lacks an existing SyncMirror base snapshot, then if one plex goes offline, subsequent resynchronization must copy all data in the aggregate - this can be a very long process. ONTAP issues this message when there is no SyncMirror base snapshot and a new one cannot be created in repeated attempts in the last ten minutes (by default). If an old base snapshot is present, this condition is less urgent. However, since space reclamation is likely to be slower, ONTAP waits up to two hours (by default) before issuing this message. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

ONTAP continually retries to create a new SyncMirror Snapshot copy. This condition might autocorrect, even after issuing this message. If it does not, contact NetApp technical support.

Syslog Message

Call home for SYNCMIRROR SNAPSHOTS NOT ROTATING PROPERLY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.syncm events

callhome.syncm.isolation

Severity

ALERT

Description

This message occurs when both plexes of a SyncMirror® configuration have disk drives in the same hardware-based disk pool; that is, the plexes are not hardware-fault isolated. Therefore, a single hardware failure can cause both plexes to fail. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

To resolve this issue, complete the following steps: 1. Identify the problem aggregate from the system logs. 2. Determine which mirror plexes have disk drives in mixed pools. 3. Determine how this occurred: possible causes include a wiring problem, a reconstruction forced mixed pools, or the mirror was created explicitly so that the plexes have disk drives in mixed pools. 4. Based on the information you gather, determine how to correct the issue. For example, recable the disk drives to restore hardware-fault isolation. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SYNCMIRROR FAULT ISOLATION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.syncm.plex

Severity

ALERT

Description

This message occurs when a SyncMirror® plex fails. Therefore, the SyncMirror plex is in a degraded mode. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem aggregate and failed plex from the system logs. 2. Determine the reason for the plex failure, such as disk drive, disk shelf, or loop failure. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SYNCMIRROR PLEX FAILED

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.syncm.plex.offlined

Severity

    ALERT

Description

    This message occurs when a SyncMirror® plex is offlined. Therefore, the Syncmirror aggregate is in a degraded mode. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    To resolve this problem, complete the following steps: 1. Identify the problem aggregate and offlined plex from the system logs. 2. Determine the reason for the plex being offlined: a. Issue with backend array or adapter b. IO timeout errors on multiple disks c. SCSI errors 3. Replace any faulty components that you discover. 4. Online the plex manually. If you need assistance, contact NetApp technical support.

Syslog Message

    Call home for SYNCMIRROR PLEX OFFLINED

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.syncm.verify

Severity

    ERROR

Description

    This message occurs when the system finds one or more block inconsistencies between plexes of a SyncMirror® configuration. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

    To resolve this issue, complete the following steps: 1. Determine the problem aggregate and failed plex from the system logs. 2. Take the aggregate offline. 3. Split the plexes into two aggregates. 4. Contact NetApp technical support for assistance, and then run WAFL® Iron (wafliron) on both aggregates. 5. Determine which is the 'good' aggregate by inspection. 6. Take offline and then destroy the 'bad' aggregate. 7. Re-mirror the 'good' aggregate. If you need assistance, contact NetApp technical support.

Syslog Message

    Call home for SYNCMIRROR VERIFY FAILED

Parameters

    subject (STRING): AutoSupport subject or title for this event.

callhome.syncsm events

callhome.syncsm.exception

Severity

ERROR

Description

This message occurs when critical thresholds are breached for a SnapMirror® Synchronous relationship. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Use the "snapmirror show" command to check for current status. Contact support personnel if this problem occurs repeatedly and prevents the relationship from moving to the InSync status.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.syncsm.oos.fatal

Severity

ALERT

Description

This message occurs when a resynchronize operation between the source volume and destination volume fails for a SnapMirror® Sync relationship. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Look for the sms.resync.attempt.failed event concerning this relationship in the EMS log file. The event provides the reason why the relationship has been transitioned to out-of-sync and an appropriate corrective action, if applicable.

Syslog Message

Call home for %s.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sys events

callhome.sys.config

Severity

ERROR

Description

This message occurs when the appliance has an unsupported PCI slot configuration. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Examine the command-line interface and System Configuration Guide for more information about slot assignments and hardware configuration, and then correct the unsupported configuration. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SYSTEM CONFIGURATION WARNING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.sys.config.crit

Severity

ERROR

Description

This message occurs when the appliance has an unsupported PCI slot configuration. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Examine the command-line interface and System Configuration Guide for more information about slot assignments and hardware configuration, and then correct the unsupported configuration. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for SYSTEM CONFIGURATION ERROR

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.tgt events

callhome.tgt.lun.nospc

Severity

ERROR

Description

This message occurs when the SCSI Target subsystem begins failing SCSI Write commands due to to an out of space (ENOSPC) condition on the appliance. This event is seen only when thin provisioning is used together with FCP or iSCSI. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

When this event occurs the customer should verify that all volumes containing luns on the appliance are properly configured for thin provisioning. Under some conditions additional disks may need to be added to the volume/aggragate. Contact NetApp support for more information. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for LUN OUT OF SPACE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.unsupported events

callhome.unsupported.snaplock

Severity

ALERT

Description

This message occurs when the system generates an AutoSupport event to notify you that a SnapLock® disk is attached to a system running a release of ONTAP® that does not support SnapLock.

Corrective Action

Remove the SnapLock disks from this system and attach them to a system that supports SnapLock. You can also revert or upgrade this system to a release that supports SnapLock.

Syslog Message

Call home for SNAPLOCK DISKS IN UNSUPPORTED RELEASE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups events

callhome.ups.line

Severity

NOTICE

Description

This message occurs when line power for an Uninterruptible Power Supply (UPS) system is restored and

the battery power is normal.

Corrective Action

Maintain the environment and ensure that the line power to the UPS continues to be normal. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS LINE POWER RESTORED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups.low.battery

Severity

ALERT

Description

This message occurs when battery power for an Uninterruptible Power Supply (UPS) system has under 5 minutes of charge left. The system is currently serving data but will eventually shut down if the UPS continues to run without line power. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the environment and restore the line power to the UPS as soon as possible to avoid system shutdown. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS LOW BATTERY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups.ok.low.battery

Severity

NOTICE

Description

This message occurs when line power for an Uninterruptible Power Supply (UPS) system is restored but the battery power is low. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Maintain the environment and ensure that the line power to the UPS continues to be normal. As line power continues to be normal, the battery is recharged. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS PWR GOOD LOW BATTERY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups.ok.no.battery

Severity

NOTICE

Description

This message occurs when line power for an Uninterruptible Power Supply (UPS) system is restored but the battery power is very low. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Maintain the environment and ensure that the line power to the UPS continues to be normal. As line power continues to be normal, the battery is recharged. If line power is disrupted or leaves the normal range, the system might shut down immediately to protect your data. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS PWR GOOD CRITICAL BATTERY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups.on.battery

Severity

ALERT

Description

This message occurs when line power for an Uninterruptible Power Supply (UPS) system fails and the system is running on battery power. The server is currently serving data but will eventually shut down if the UPS continues to run without line power. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the environment and restore line power to the UPS as soon as possible to avoid system shutdown. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS ON BATTERY

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.ups.shutting.down

Severity

ALERT

Description

This message occurs when battery power for an Uninterruptible Power Supply (UPS) system is almost depleted and the system is shutting down to protect your data. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Restore the line power to the UPS immediately to prevent system shutdown. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for UPS SHUTTING DOWN

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.user events

callhome.user.snmp.trap

Severity

NOTICE

Description

This message occurs when a SNMP (Simple Network Management Protocol) has been configured to cause an SNMP trap. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for SNMP USER DEFINED TRAP

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.vdom events

callhome.vdom.reconcile

Severity

ERROR

Description

This message occurs when the virtual disk infrastructure (vdom) unsuccessfully reconciles the Out Of Volume Container (OOVC) and the Vdisk Table Of Contents (VTOC). The Out Of Volume Container or OOVC is an area of storage that resides in a per-vvol aggregate metadir and provides storage for LUN configuration (override) and metadata (PR, mode page, log page). OOVC will have a LUN inventory that is identical to the LUN inventory in the AFS. Therefore the VTOC and OOVC must contain the same set of LUNs. As a result of data management operations like volume snaprestore, the LUN inventory can differ between VTOC and OOVC. For these operations that affect LUN inventory, VDOM will need to reconcile the OOVC with the VTOC as part of the operation. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for %s Could not reconcile vtoc and oovc for volume associated with DSID: %llu, due to VDOM error: %u.

Parameters

subject (STRING): AutoSupport subject or title for this event.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
vdom_error (INT): The vdom error code associated with the reconcile.

callhome.vfiler events

callhome.vfiler.move.to.dst

Severity

ALERT

Description

This message occurs on the destination controller during the final phase of migrating a vfiler when the 120 second time limit has been reached . During the final phase of migrating a vfiler from a source controller to a destination controller, input/output data access is stalled until the destination is ready. The amount of time spent with I/O data access stalled within 120 seconds, since many pre-checks have be done to ensure this can be achieved. With the time limit reached, operations will resume to using the vfiler on the source controller. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check that service has been restored to the vfiler on the source controller. If not, contact NetApp technical support. Many pre-checks have been done to ensure timely migration of the vfiler from one controller to another. It is unclear whether network or other conditions have changed, such as changes in controller loads have prevented successful vfiler migration. Check the network connectivity, network bandwidth, load on the source controller and load on the destination controller. If they are not within normal expecations,

resolve the issue. If they are within normal expectations, consult with NetApp technical support. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for VFILER MIGRATION EXCEEDED 120 SECONDS ON DESTINATION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.vfiler.move.to.src

Severity

NOTICE

Description

This message occurs on the source controller at the request of the destination controller. The destination controller has exceeded a 120 second time limit during the final phase of migrating a vfiler. During the final phase of migrating a vfiler from a source controller to a destination controller, input/output data access is stalled until the destination is ready. The amount of time spent with I/O data access stalled within 120 seconds, since many pre-checks have be done to ensure this can be achieved. With the time limit reached, operations will resume to using the vfiler on the source controller. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check that service has been restored to the vfiler on this controller. If not, contact NetApp technical support. Many pre-checks have been done to ensure timely migration of the vfiler from one controller to another. It is unclear whether network or other conditions have changed, such as changes in controller loads have prevented successful vfiler migration. Check the network connectivity, network bandwidth, load on the source controller and load on the destination controller. If they are not within normal expectations, please resolve. If they are within normal expectations, consult with NetApp technical support. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for VFILER MIGRATION TIME OUT EXCEEDED BY DESTINATION

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.vol events

callhome.vol.offline

Severity

ALERT

Description

This message occurs when the system detects an inconsistent volume and takes it offline. The file system inconsistency could be from one or more sources. The inconsistency might be related to previous operations or to current operations. Disabling access is a protective measure to ensure that further inconsistencies are avoided. If your system is configured to do so, it generates and transmits an

AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

If the operating environment for the system, storage, or associated cabling has changed in terms of temperature, humidity, vibration, unstable electrical power, or other physical factors, gracefully shut down and power off the system until the environment is restored to normal operations. If the operating environment has not changed, identify the source of the inconsistency by checking for previous errors and warnings. Also check for hardware statistics from Fibre Channel, SCSI, disk drives, other communications mechanisms, and previous administrative activities. Another approach is to consult with NetApp technical support (it is recommended that you do so before attempting this step), and then run WAFL® Iron (wafliron) on the volume to identify and optionally repair the inconsistency. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for VOLUME INCONSISTENT AND TAKEN OFFLINE

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.vol.space.crit

Severity

EMERGENCY

Description

This message occurs when a volume has overallocated space. It will be taken offline soon and the node will reboot. If your system is configured to do so, it generates and transmits an AutoSupport (or "call home") message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

For non-ASA r2 platforms, create space by increasing volume or aggregate size or by deleting data. While changing the provisioning from thick to thin will prevent further utilization of space, it is no longer sufficient to prevent the volume or aggregate from being offlined. In a volume, size can be increased with the "volume size" command. To change provisioning in a volume, reserved files can be unreserved using the "volume file reservation" command. In an aggregate, size can be increased by adding disks. To change provisioning in an aggregate, volume guarantees can be changed from "volume" to "none" using the "space-guarantee" parameter in the "volume modify" command. The nodeshell "vol status -S" and "aggr status -S" commands display "Total Used" and "Total Physical Used" values greater than 100% when the reserve is being used. The "vol.log.overalloc" and "volume.phys.overalloc" EMS events and their associated SNMP traps of "volumeLogicalOverallocated" and "volumePhysicalOverallocated" are issued when the volume or aggregate is consuming more than the recommended amount of reserve. For ASA r2 platforms, create space in aggregate or volume. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

Call home for VOLUME CRITICALLY OUT OF SPACE ERROR.

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafl events

callhome.wafl.check

Severity

ALERT

Description

This message occurs after a WAFL® check (wack) operation runs. WAFL check is a detection and repair process. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the appliance's log for valuable information that WAFL check might have reported. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for WAFL_check

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafl.inconsistent

Severity

ALERT

Description

This message occurs when the system detects that a volume is inconsistent. The file system inconsistency can be from one or more sources. The inconsistency can be related to previous operations or to current operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Consult with NetApp technical support (it is recommended that you do so before attempting this step), and then run WAFL® Iron (wafliron) on the volume to identify and optionally repair the inconsistency. If you need further assistance, contact NetApp technical support.

Syslog Message

Call home for WAFL INCONSISTENT

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafl.inconsistent.block

Severity

ALERT

Description

This message occurs when the system detects a volume that contains an inconsistent block. The file system inconsistency can be from one or more sources. The inconsistency can be related to previous data operations or to current data operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for further assistance.

Syslog Message

Call home for WAFL INCONSISTENT BLOCK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafl.inconsistent.user.block

Severity

ALERT

Description

This message occurs when the system detects inconsistent user data within a volume. The file system inconsistency can be from one or more sources. The inconsistency can be related to previous data operations or to current data operations. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Contact NetApp technical support for further assistance.

Syslog Message

Call home for WAFL INCONSISTENT USER BLOCK

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafl.iron.done

Severity

NOTICE

Description

This message occurs after a WAFL® Iron (wafliron) operation runs. WAFL® Iron is a detection and repair process. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home')

message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Check the appliance's log for valuable information that WAFL Iron might have reported. If you need assistance, contact NetApp technical support.

Syslog Message

Call home for WAFL IRON COMPLETED

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.wafliron events

callhome.wafliron.chg.pending

Severity

NOTICE

Description

This message occurs when WAFL® Iron (wafliron) Optional Commit changes are pending. WAFL® Iron is a detection and repair process. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message significantly improves problem determination and resolution.

Corrective Action

Work with NetApp technical support on this issue. If you decide against this, it is recommended that the pending changes be committed.

Syslog Message

Call home for WAFLIRON CHANGES PENDING

Parameters

subject (STRING): AutoSupport subject or title for this event.

callhome.weekly events

callhome.weekly

Severity

NOTICE

Description

This message occurs when the weekly AutoSupport or 'call home' event is sent. Information is sent to NetApp technical support to ensure that subsequent communications work and to enable operations analysis. Some results of these analysis might include recommendations on upgrades, firmware changes, and configuration changes to improve the reliability and performance of the system. If your system is configured to do so, it generates and transmits an AutoSupport (or 'call home') message to NetApp technical support and to the configured destinations. Successful delivery of an AutoSupport message

significantly improves problem determination and resolution.

Corrective Action

(None).

Syslog Message

Call home for WEEKLY_LOG

Parameters

subject (STRING): AutoSupport subject or title for this event.

cam events

cam.dev events

cam.dev.fuaNotSupported

Severity

ALERT

Description

This message occurs when the disk does not support the Forced Unit Access (FUA) feature bit. Using this disk with the write cache enabled can lead to data corruption.

Corrective Action

Use disks with the write cache disabled or disks where the FUA feature is supported.

Syslog Message

FUA feature is not supported for disk %s%d with target address %s.

Parameters

periph_name (STRING): Disk name.
unit (INT): Unit number.
target_addr (STRING): Disk target address.

cam.dev.fuaNotVerified

Severity

ALERT

Description

This message occurs when ONTAP® software fails to read the SCSI page containing the Forced Unit Access (FUA) feature bit. Using the disk with the write cache enabled and FUA not supported can lead to data corruption.

Corrective Action

Because ONTAP cannot determine the state of the FUA feature bit, disable the disk write cache if it is enabled by default. If the write cache cannot be disabled, replace the disk to avoid corruption.

Syslog Message

Unable to read the FUA settings for disk %s%d with target address %s.

Parameters

periph_name (STRING): Disk name.
unit (INT): Unit number.
target_addr (STRING): Disk target address.

cam.timeout events

cam.timeout.retry

Severity

NOTICE

Description

This message occurs when an I/O request to a Common Access Method (CAM) device driver times out. This might be indicative of an overloaded back-end storage subsystem. The I/O operation will be retried; this message does not indicate failure.

Corrective Action

(None).

Syslog Message

CAM device driver I/O timeout. %s%s%s.

Parameters

cam_timeout (STRING): Timeout message for an I/O request from a CAM device driver.
uuid (STRING): Unique identifier for the device.
outstanding (STRING): Command that timed out and its elapsed time.

cap events

cap.cache events

cap.cache.corrupt

Severity

ERROR

Description

This message occurs when a corrupt Central Access Policy (CAP) is encountered during access checks.

Corrective Action

Fix the CAP definitions on the Active Directory, and use the 'vserver cifs group-policy update' command to refresh the cache on the cluster.

Syslog Message

Encountered a corrupt CAP for Vserver %s.

Parameters

vserverUuidStr (STRING): UUID of the Vserver.

cap.cache.not.ready

Severity

ERROR

Description

This message occurs when the system attempts to access a Central Access Policy (CAP) for evaluation during access checks and finds the CAP cache database (DB) is not ready for access.

Corrective Action

Make sure that group-policy is enabled for the given Vserver and the Central Access Policies (CAPs) from the Active Directory (AD) can be applied to file system objects.

Syslog Message

CAP Cache DB not ready for Vserver %s.

Parameters

vserverUuidStr (STRING): UUID of the Vserver.

cap.cache.update.failed

Severity

ERROR

Description

This message occurs when refresh of the Central Access Policy (CAP) Cache database (DB) fails.

Corrective Action

Use the "vserver cifs group-policy update" command with the "force" flag to retry the operation manually.

Syslog Message

Failed to update the CAP cache DB for Vserver %s. (Reason: %s.)

Parameters

vserverUuidStr (STRING): UUID of the Vserver.
errString (STRING): Error string.

ccma events

ccma.disabled events

ccma.disabled

Severity

ERROR

Description

This message occurs when the Performance Archive has been disabled for more than an hour. This is caused by setting the -is-enabled flag to false. This message will be repeated every hour that the archiver is turned off. The messages will only displayed once a day.

Corrective Action

Run the 'statistics archive config modify -is-enable true' command. This will enable the Performance Archive.

Syslog Message

The Performance Archive has been disabled for more than an hour. It is Important for the analysis and diagnoses of performance related issues. Consider enabling it.

Parameters

(None).

ccma.perfstatd events

ccma.perfstatd.disabled

Severity

ERROR

Description

This message occurs when the Perfstat daemon (perfstatd) has been disabled for more than an hour. This is caused by setting the -perfstat-sampling-period value to 0. This message will be repeated every hour perfstatd is turned off. The messages will only displayed once a day.

Corrective Action

Run the 'statistics archive config modify -perfstat-sampling-period 5' command. This will enable the perfstatd and it will set the Perfstat sampling period to the default value of 5 minutes.

Syslog Message

The Perfstat daemon (perfstatd) has been disabled for more than an hour. It is important for the analysis and diagnoses of performance related issues. Consider enabling it.

Parameters

(None).

ccma.quota events

ccma.quota.datastore.leak

Severity

ERROR

Description

This message occurs when a datastore has been orphaned due to the system not having sufficient memory to keep track of itin the quota system. Orphaned datastpres will take up disk space and may build up over time if this problem recurs.

Corrective Action

Delete the orphaned datastore and/or restart the CM daemon once the out of memory condition has been resolved.

Syslog Message

A datastore may have been orphaned due to the system being out of memory. Please delete this datastore: %s

Parameters

datastore (STRING): Name of the datastore that has been orphaned and needs to be deleted.

ccma.quota.file.leak

Severity

ERROR

Description

This message occurs when an archiver file has been orphaned due to the system not having sufficient memory to keep track of the file in the quota system. Orphaned files will take up disk space and may build up over time if this problem recurs.

Corrective Action

Delete the orphaned file and/or restart the CM daemon once the out of memory condition has been resolved.

Syslog Message

An archiver file may have been orphaned due to the system being out of memory. Please delete this file: %s

Parameters

filename (STRING): Name of the archiver file that has been orphaned and needs to be deleted.

ccma.quota.throughput

Severity

NOTICE

Description

This message occurs when the performance archive data collection rate is too high for the amount of reserved disk space, possibly resulting in a shortened history of the system's performance (less than the

configured datastore-max-retention value). A shortened history might limit the ability of support staff to triage performance problems.

Corrective Action

Using the (diagnostic privilege) "statistics archive config" commands, increase the performance archive's datastore-max-percent configuration parameter so that the reported datastore-max-size value on this node is increased by the stated "size" amount.

Syslog Message

The performance archive data collection rate is too high for the amount of space available. The system can only keep %ld days of performance archive data at this rate, and needs %ld MB of additional space to maintain a system performance history equal to the datastore-max-retention configuration value.

Parameters

days (LONGINT): Number of days of performance archive data that can be stored at the current rate.
size (LONGINT): Size increase (in MB) needed to maintain a system performance history equal to the datastore-max-retention configuration value.

cde events

cde.undo events

cde.undo.abort

Severity

NOTICE

Description

This message occurs when undo of cde has to abort.

Corrective Action

(None).

Syslog Message

Undo of auto adaptive compression on volume %s%s aborted.

Parameters

vvol_name (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

cde.undo.done

Severity

NOTICE

Description

This message occurs when cde undo is done.

Corrective Action

(None).

Syslog Message

Auto adaptive compression undo is done for volume %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

cdpd events

cdpd.recv events

cdpd.recv.cacheOverflow

Severity

ERROR

Description

This message occurs when the CDP (Cisco Discovery Protocol) daemon running on the storage controller receives more unique neighbor advertisements than it can cache. The storage controller stops saving incoming CDP advertisements after the CDP neighbor cache has the maximum allowed neighbor entries. The CDP daemon will start processing new advertisements again after entries in the CDP neighbor cache start timing out.

Corrective Action

Use the 'cdpd show-stats' CLI command under the "Cache overflow" receive statistic to view the number of unique advertisements in excess of the maximum. Check the traffic statistics on the neighboring switches and bridges. If the storage controller has more than 64 CDP neighbors, you can ignore this message. Otherwise, take a packet trace on the network or on each network port of the storage controller to check the source of the CDP advertisements.

Syslog Message

The CDP neighbors table is full.

Parameters

(None).

cecc_log events

cecc_log.dropped events

cecc_log.dropped

Severity

NOTICE

Description

This message occurs when the ECC error logger dropped some correctable ECC errors without logging them. Typically, correctable ECC errors are logged in the system even though they are automatically corrected. They are dropped due to lack of buffer space in the ECC error logger. This might be a sign of high frequency of ECC errors. If the number of ECC errors dropped crosses a certain predefined threshold, the ECC error logger issues a cecc_log.masked message.

Corrective Action

(None).

Syslog Message

Dropped %lld additional correctable ECC error details.

Parameters

num_cecc_batch_dropped (LONGINT): Number of correctable ECC errors dropped without being logged.

cecc_log.entry events

cecc_log.entry

Severity

NOTICE

Description

Correctable ECC errors occurred in the system memory. The system automatically corrects these errors. All the corrected errors are reported by the ECC error logger to track the history of occurrence of these errors.

Corrective Action

(None).

Syslog Message

%lld: %s

Parameters

cecc_entry_num (LONGINT): Number of correctable ECC errors since boot.
cecc_msg (STRING): Information about the ECC error.

cecc_log.entry_no_syslog events

cecc_log.entry_no_syslog

Severity

NOTICE

Description

Correctable ECC errors occurred in the system memory. The system automatically corrects these errors. All the corrected errors are reported by the ECC error logger to track the history of occurrence of these errors.

Corrective Action

(None).

Syslog Message

(None).

Parameters

cecc_entry_num (LONGINT): Number of correctable ECC errors since boot.
cecc_msg (STRING): Information about the ECC error.

cecc_log.masked events

cecc_log.masked

Severity

ERROR

Description

This message occurs when the ECC error logger stops reporting the occurrence of correctable ECC errors because the frequency of their occurrence is too high. The ECC logger crossed the predefined threshold of ECC errors that can be dropped. Reporting is suppressed to control the log traffic, but the system sends out a periodic message as a reminder.

Corrective Action

Use the "system controller memory dimm show" command to check system memory.

Syslog Message

Error logging temporarily suspended due to excessive CECC errors.

Parameters

(None).

cecc_log.summary events

cecc_log.summary

Severity

NOTICE

Description

This message occurs when the ECC error logger reports its periodic summary of new correctable ECC

errors that occurred after the last report and the total number of ECC errors that occurred since boot. These errors were corrected by the system.

Corrective Action

(None).

Syslog Message

Total of %lld new correctable ECC errors just reported. You might want to check system memory. %lld correctable ECC errors reported since booting.

Parameters

num_ceccs (LONGINT): Number of new correctable ECC errors after the last summary.
total_num_ceccs (LONGINT): Number of correctable ECC errors since boot.

certificate events

certificate.insecure events

certificate.insecure.hash

Severity

ERROR

Description

This message occurs when an installed certificate uses a hash function that is no longer considered secure. Client-server communication using this certificate should be presumed insecure, and could be disrupted.

Corrective Action

Delete the insecure certificate by using the "security certificate delete" command. Install an appropriate replacement by using the "security certificate install" command or "security certificate create" command.

Syslog Message

A digital certificate with UUID %s in Vserver %s with name %s is using the insecure hash function %s.

Parameters

uuid (STRING): UUID of the offending certificate.
vserver (STRING): Name of the Vserver in which the offending certificate is installed.
cert_name (STRING): Name (unique within a Vserver) of the offending certificate.
hash_function (STRING): Hash function used by the offending certificate.

certificate.insecure.key

Severity

ERROR

Description

This message occurs when an installed certificate uses a key length that is no longer considered secure for the corresponding key algorithm. Client-server communication using this certificate should be presumed insecure, and could be disrupted.

Corrective Action

Delete the insecure certificate by using the "security certificate delete" command. Install an appropriate replacement by using the "security certificate install" command or "security certificate create" command.

Syslog Message

A digital certificate with UUID %s in Vserver %s with name %s has an insecure key of type %s and length %d.

Parameters

uuid (STRING): UUID of the offending certificate.
vserver (STRING): Name of the Vserver in which the offending certificate is installed.
cert_name (STRING): Name (unique within a Vserver) of the offending certificate.
key_algorithm (STRING): Algorithm (e.g., RSA) of the key for the corresponding certificate.
key_length (INT): Length of the key in bits for the corresponding certificate.

certificate.invalid events

certificate.invalid.chain

Severity

ERROR

Description

This message occurs when an installed certificate record contains multiple X.509 certificates. Such records are not treated consistently by the system, but were unintentionally permitted in prior releases.

Corrective Action

Delete the problematic record by using the "security certificate delete" command. Install the constituent certificates separately by using the "security certificate install" command once for each certificate.

Syslog Message

The certificate record with UUID %s, named "%s" in Vserver "%s", contains multiple certificates.

Parameters

uuid (STRING): UUID of the offending record.
cert_name (STRING): Name (unique within a Vserver) of the offending record.
vserver (STRING): Name of the Vserver in which the offending record is installed.

certificate.node events

certificate.node.vserver

Severity

ERROR

Description

This message occurs when an installed certificate record exists in a node Vserver. Such records are not treated consistently by the system, but were unintentionally permitted in prior releases.

Corrective Action

Delete the problematic record by using the "security certificate delete" command.

Syslog Message

The certificate record with UUID %s, named "%s" is installed in the node Vserver "%s".

Parameters

uuid (STRING): UUID of the offending record.
cert_name (STRING): Name (unique within a Vserver) of the offending record.
vserver (STRING): Name of the node Vserver in which the offending record is installed.

cf events

cf.autogbcanceled events

cf.autoGBCanceled.headswap

Severity

INFORMATIONAL

Description

This message occurs when an automatic giveback is canceled because of a headswap.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.badshelfcountmsg events

cf.badShelfCountMsg

Severity

ERROR

Description

This event occurs if we are sent an invalid negotiated failover shelf count message. The message size is incorrect. This is likely due to an InterConnect problem.

Corrective Action

Check for and resolve any interconnect errors. If the nodes are on different releases, upgrade the down-rev node.

Syslog Message

Invalid disk shelf count message was received from partner.

Parameters

(None).

cf.badshelfcountversion events

cf.badShelfCountVersion

Severity

ERROR

Description

This event occurs if we are sent a negotiated failover shelf count message with a version which we don't support. As a result, disk shelf count negotiated failover will not work. This is likely due to a kernel version mismatch.

Corrective Action

Upgrade the down-rev node so both nodes are on the same version.

Syslog Message

Disk shelf count message with unsupported version received from partner.

Parameters

(None).

cf.boot events

cf.boot.continuing

Severity

INFORMATIONAL

Description

This message occurs when the failover monitor continues booting after waiting for giveback.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.cdo events

cf.cdo.badMsg

Severity

ERROR

Description

This event is issued when the filer receives a disk operation message over the High Availability (HA) interconnect that it does not recognize. This is likely due to a change in the message protocol that the down-revision partner does not recognize. Fix this problem by upgrading the partner to a compatible version of Data ONTAP®. This message is not emitted for every message received to avoid spamming the console.

Corrective Action

Upgrade both nodes to the same release.

Syslog Message

unknown message %d received from partner (%d unknown messages since boot).

Parameters

msg (INT): Message which was not known.
count (INT): Number of unknown messages.

cf.cdo.reportOp

Severity

NOTICE

Description

This event is issued when the filer bypasses or unbypasses a disk after being requested to do so by its partner. The bypassing of a drive on a particular port may only be done by the host which is attached to that port; the High Availability (HA) software ensures that both ports of the drive are bypassed by communicating bypass requests to the partner.

Corrective Action

(None).

Syslog Message

%s disk %s on behalf of the partner.

Parameters

op (STRING): Operation description
driveName (STRING): Drive name

cf.disk events

cf.disk.invent.mismatchalt

Severity

ALERT

Description

This message occurs when one of the nodes in a high-availability (HA) pair reports that multiple disks in the disk inventory do not match what the partner node reported. This only occurs when sufficient mismatches have occurred to throttle the specific disk inventory mismatch message. The issue might be due to one of following reasons: (1) One node can see disks that the other node cannot. (2) Ownership of multiple disks has changed. (3) Multiple disks have been failed or unfailed. (4) Multiple disks have been inserted or removed.

Corrective Action

Rescan the disks on both nodes in the HA pair to determine the latest ownership by using the "storage disk refresh-ownership" command. If the inventory mismatch is not resolved, remove and replace any failed disks. If there are no failed disks, check the cabling for loose connections or a bad cable on the node where the disks are not included in the inventory.

Syslog Message

Status of some of the disks has changed or the node (%s) is missing %u disks (detailed logs have been throttled).

Parameters

host (STRING): Name of the node not reporting the disks in its disk inventory.
nummissing (INT): Number of disks not reported in the disk inventory.

cf.disk.invent.mismatchOKalt

Severity

INFORMATIONAL

Description

This message occurs when previously detected disk inventory mismatches have been resolved and the detailed match events have been throttled.

Corrective Action

(None).

Syslog Message

%u disks now included in the inventory of node (%s) (detailed logs have been throttled).

Parameters

nummatches (INT): Number of disks found to match the partner disk inventory so far.
host (STRING): Name of the host where the disk is included in the inventory.

cf.disk.inventory.mismatch

Severity

ERROR

Description

This message occurs when one of the nodes in a high-availability (HA) pair has reported this disk in its disk inventory, but the HA partner node has not. This might be due to one of following reasons: (1) One node can see the disk, but the other node cannot. (2) Ownership of the disk has changed. (3) The disk has either been failed or unfailed. (4) The disk has been inserted or removed.

Corrective Action

Use the "storage disk refresh-ownership" command on both nodes in the HA pair to rescan the disks and to determine the latest ownership. For ASA r2, Use the "storage disk show -fields storage-pod-uuid" instead of the "storage disk refresh-ownership" command. If the inventory mismatch is not resolved, remove and replace any failed disks. If there are no failed disks, check the cabling for loose connections or a bad cable on the node where the disk is not included in the inventory.

Syslog Message

Status of the disk %s (%s) has recently changed or the node (%s) is missing the disk.

Parameters

diskname (STRING): Name of the disk not reported in the inventory.
uid (STRING): Unique identifier of the disk that was not included in the inventory.

host (STRING): Name of the node not reporting the disk in its disk inventory.

cf.disk.inventory.mismatchOK

Severity

INFORMATIONAL

Description

This message occurs when a previously detected disk inventory mismatch is resolved.

Corrective Action

(None).

Syslog Message

The node (%s) included the disk %s (%s) in its inventory.

Parameters

host (STRING): Name of the host where the disk is included in the inventory.
diskname (STRING): Name of the disk included in the inventory.
uid (STRING): Unique identifier of the disk.

cf.disk.inventory.ver.notok

Severity

ERROR

Description

This message occurs when the local node does not support the partner's disk inventory message version.

Corrective Action

Upgrade the partner to the same Data ONTAP® version.

Syslog Message

cfdisk: The local node did not support the partner's disk inventory message version. The disk inventory check will not be performed during giveback.

Parameters

(None).

cf.disk.inventoryChange

Severity

INFORMATIONAL

Description

This event is issued when High Availability (HA) disk inventory is enabled/disabled.

Corrective Action

(None).

Failover monitor: disk inventory %s

Parameters

state (STRING): Parameter which describes if enabled or disabled.

cf.disk.releaseFailed

Severity

ERROR

Description

This message occurs when the release of reservation request on a disk fails. The error indicates that a disk is not ready, that it failed, or that it does not exist.

Corrective Action

Use the "disk show -broken" CLI command to check whether the disk is reporting a "FAILED" state, or use the "disk show -disk diskname" command to check the status of the disk. Also check the syslog for other errors pertaining to the same disk. The disk might need to be reseated or replaced.

Syslog Message

Disk reservation failed to release on disk %s because the error %d was encountered.

Parameters

diskname (STRING): Disk that reported the failure when a release of reservation request was attempted on it.
force (INT): Type of reservation release request. If non-zero, then the system was instructed to release reservations owned by the other systems. Otherwise, it only releases the reservation on the disks reserved by the local system.
error (INT): Error encountered while attempting to release the reservation on disk.
errortext (STRING): Error description as text.

cf.disk.reserveFailed

Severity

ERROR

Description

This message occurs when a disk reserve fails. The error indicates that a disk is not ready, that it failed, or that it does not exist.

Corrective Action

Check the specified disk for failure. You might need to replace it or reseat it. Then check the syslog for other errors pertaining to the same disk.

Syslog Message

(None).

Parameters

diskname (STRING): Disk that reported the failure when a reserve was attempted on it.
preempt (INT): Type of reservation request. If non-zero, then the system was instructed to preempt reservations from the other systems. Otherwise, it only reserves disks without existing reservations.

error (INT): Error encountered while attempting to reserve the disk.
errortext (STRING): Error description as text.

cf.disk.resumeDisks

Severity

NOTICE

Description

This message occurs when a node resumes partner disks after a takeover. If any disks fail to be resumed, the node makes another attempt to resume them after short delay.

Corrective Action

(None).

Syslog Message

Node attempted to resume %d disks, but failed with %d disks.

Parameters

fmdisk_count (INT): Number of disks resumed.
fmdisk_error_count (INT): Number of disks that had resume errors.

cf.disk.ResvFail

Severity

ALERT

Description

This message occurs when a node attempts to access a disk that has been reserved by the HA partner node. A node performing a takeover reserves the HA partner node's disks as part of a takeover operation. It is possible that the node being taken over can attempt to access a reserved disk before it has shut down as part of being taken over. The takeover node will automatically release the reservation prior to a giveback operation.

Corrective Action

The takeover node will automatically release the disk reservation before a giveback operation.

Syslog Message

Disk %s has been reserved by the High Availability (HA) partner as part of a takeover operation.

Parameters

DiskName (STRING): Name of the disk.

cf.disk.ResvTakeOver

Severity

NOTICE

Description

This event is issued when we find disks with reservation conflicts.

Corrective Action

(None).

Syslog Message

This node will wait for giveback and the disk reservations to be released.

Parameters

(None).

cf.disk.skipped

Severity

NOTICE

Description

This message occurs when the failover monitor skips an unresponsive disk.

Corrective Action

Use the "storage disk show" command to check whether the disk failed. Replace the disk if needed.

Syslog Message

The disk %s was skipped because it reported the status %s.

Parameters

diskname (STRING): Name of the disk that was skipped.
status (STRING): Status reported by the disk.

cf.diskinventory events

cf.diskinventory.cksum.fail

Severity

ALERT

Description

This message occurs when the computed checksum of the disk inventory message is different from the checksum sent as part of the disk inventory message.

Corrective Action

(None).

Syslog Message

Disk inventory checksum mismatch: old %d new %d.

Parameters

oldCkSum (INT): Old checksum, sent as part of the message.
newCkSum (INT): Checksum of the disk inventory message computed locally.

cf.diskinventory.many.disks

Severity

INFORMATIONAL

Description

This message occurs when a node receives more than maximum supported disks in the disk inventory message.

Corrective Action

(None).

Syslog Message

disk inventory: ndisks %d max_disks %d

Parameters

ndisks (INT): Number of disk descriptions sent in the inventory message.
maxdisks (INT): Maximum number of disks supported.

cf.fm events

cf.fm.cpuUtilDuringTOAndGB

Deprecated

Deprecated as of version 9.0.

Severity

NOTICE

Description

This message occurs at the start of a takeover, end of a successful takeover, start of a CFO giveback, and completion of an SFO giveback. It records the maximum, minimum, and average CPU and disk utilization on the node executing the takeover or giveback.

Corrective Action

(None).

Syslog Message

CPU and disk utilization during the %d seconds %s: cpu_util_high: %lld; cpu_util_low: %lld; cpu_util_avg: %lld; disk_util_high: %lld; disk_util_low: %lld; disk_util_avg: %lld

Parameters

window_sz (INT): Duration, in seconds, over which CPU and disk utilization are tracked.
when (STRING): Event during which CPU and disk utilization are tracked.
cpu_util_high (LONGINT): Maximum CPU utilization.
cpu_util_low (LONGINT): Minimum CPU utilization.
cpu_util_avg (LONGINT): Average CPU utilization.
disk_util_high (LONGINT): Maximum disk utilization.
disk_util_low (LONGINT): Minimum disk utilization.
disk_util_avg (LONGINT): Average disk utilization.

cf.fm.discardNvram

Severity

NOTICE

Description

This event is issued when we discover that the partner has previously taken us over, forcing us to invalidate our own nvram contents. This is a normal condition, subsequent to a takeover/giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: node was previously taken over, nvram may be discarded

Parameters

(None).

cf.fm.diskInventoryOff

Severity

ERROR

Description

This message occurs when the system discovers that disk inventory gathering has been disabled. During normal operation, the high-availability (HA) nodes transmit their disk inventory data at regular intervals. This is intended to prevent a situation in which loop connectivity problems are unnoticed until a takeover event occurs. If this event occurs, contact NetApp technical support.

Corrective Action

Use the "sysconfig" and "storage" nodeshell commands to determine whether there are problems with the loop, adapter, or shelf. Resolve those problems.

Syslog Message

Failover monitor: HA disk inventory disabled.

Parameters

(None).

cf.fm.diskRelease

Severity

INFORMATIONAL

Description

This event is issued when we're using a debug build and failover monitor reservations are released.

Corrective Action

n/a

Syslog Message

Failover monitor: released disk reservations.

Parameters

(None).

cf.fm.diskReleaseFail

Severity

NOTICE

Description

This message occurs when the release of a reservation on a disk fails in preparation for a giveback event. The error indicates that a disk is not ready, that it failed, or that it does not exist. If the reservation is detected by the partner node, it will reboot.

Corrective Action

Look for the cf.disk.releaseFailed event in the EMS log to find the name of the disk where the reservation could not be released. Follow the corrective action described in the cf.disk.releaseFailed event to address any problems with the disk.

Syslog Message

Could not release disk reservations of at least one disk.

Parameters

(None).

cf.fm.duplicateId

Severity

ALERT

Description

This message occurs when the local node system identifier is the same as the partner's. This could happen if the HA-Interconnect is configured for loopback in maintenance mode systems or if the system was not properly configured. The local node will halt in this case and the partner node will do a takeover of the local node resources, provided takeover is enabled.

Corrective Action

If this message occurs only while the system is configured in maintenance mode, it can be ignored as HA-interconnect loopback tests send a message with a node's own system identifier to itself. If this message occurs while a system is not in maintenance mode, check if the HA-interconnect cables are properly connected. If cabling is correct, contact NetApp technical support for assistance.

Syslog Message

Partner ID %u is the same as that of this node. This node will halt and the partner will perform a takeover, if takeover is enabled.

Parameters

id (INT): System ID.

cf.fm.earlyGivebackDone

Severity

NOTICE

Description

This event occurs when we are aborting a takeover that was initiated during a previous boot sequence. This event should only occur under unusual circumstances, indicating successful recovery from a software failure.

Corrective Action

(None).

Syslog Message

Failover monitor: giveback of previous takeover complete

Parameters

(None).

cf.fm.earlyTakeoverFailed

Severity

ALERT

Description

This message occurs when an error during early takeover prevents the node from booting into takeover mode. The node instead boots up without taking over its partner and also releases its partner resources, allowing the partner node to boot up. Note: Early takeover occurs when a node boots up after rebooting while in takeover mode.

Corrective Action

Check the EMS log for the cf.rsrc.takeoverFail error or other errors indicating why the node could not boot into takeover mode.

Syslog Message

Early takeover failed; node will boot without taking over partner node. Partner resources released, allowing partner node to boot.

Parameters

(None).

cf.fm.fastTimeoutBlocked

Severity

ERROR

Description

This event is issued if the monitor fast timeout thread has been blocked for an unacceptable amount of time. The event indicates a heavy load on the system and may result in an unexpected (false) takeover.

Corrective Action

Check CPU load and make sure system is not over subscribed.

Syslog Message

WARNING failover monitor fast timeout was blocked for %lld secs

Parameters

secs (LONGINT): Number of seconds that the High Availability (HA) node has been blocked

cf.fm.gbCancelledDuetoDR

Severity

ERROR

Description

This event is issued when a giveback has been cancelled due to an ongoing metrocluster disaster recovery operation.

Corrective Action

Check the status of metrocluster disaster recovery operation by executing command 'metrocluster operation show'. If the command reports metrocluster disaster recovery operation is in progress wait for it to complete and then issue a manual giveback.

Syslog Message

Failover monitor: giveback cancelled

Parameters

(None).

cf.fm.givebackCancelled

Severity

NOTICE

Description

This message occurs when a giveback is canceled due to a preexisting state, such as an active CIFS session, a reconstruction, and so on.

Corrective Action

To override, use the "storage failover giveback -override-vetoes true" command.

Syslog Message

Failover monitor: giveback canceled.

Parameters

partner_node_uuid (STRING): UUID of the partner node.

cf.fm.givebackComplete

Severity

NOTICE

Description

This message occurs when giveback succeeds.

Corrective Action

(None).

Syslog Message

Failover monitor: giveback completed

Parameters

token (STRING): Unique token that identifies a failover instance.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.givebackDuration

Severity

NOTICE

Description

This message occurs when a giveback is completed successfully.

Corrective Action

(None).

Syslog Message

Failover monitor: giveback duration time is %llu seconds.

Parameters

giveback_duration (LONGINT): Giveback duration time.

cf.fm.givebackFailed

Severity

ALERT

Description

This message occurs when the failover monitor determines that a giveback has failed. The reason code is a string that describes the reason for the failure.

Corrective Action

Resolve the issue based on the reason logged in the message.

Syslog Message

Failover monitor: giveback failed '%s'

Parameters

reason (STRING): Internal reason code for the failure.
token (STRING): Unique token that identifies a failover instance.

partner_node_uuid (STRING): UUID of the partner node.

cf.fm.givebackForced

Severity
ALERT

Description
This message occurs when the takeover node detects that the takeover process has not been completed within the expected time, and/or normal attempts to give back partner resources also fail. Subsequent to this event, the takeover node will panic and reboot.

Corrective Action
Attempt to find the panic string in the event logs by using the "event log show" command from the CLI, and then look up the string by using the Panic Message Analyzer tool on the NetApp support site: http://mysupport.netapp.com/NOW/cgi-bin/pmsg/. Contact NetApp technical support to confirm the analysis.

Syslog Message
Failover monitor: forcing reboot to clear state.

Parameters
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.givebackStarted

Severity
NOTICE

Description
This message occurs when the failover monitor initiates a giveback.

Corrective Action
(None).

Syslog Message
Failover monitor: giveback started with token %s. "override-vetoes" set to %s, and "require-partner-waiting" set to %s.

Parameters
token (STRING): Unique token that identifies a failover instance.
override_vetoes (STRING): Flag that indicates whether the system overrides veto checks during a giveback operation. This flag corresponds to the "-override-vetoes" parameter of the "storage failover giveback" command. When the parameter is set to true, some veto checks made by subsystems on the source node might be overridden.
require_partner_waiting (STRING): Flag that indicates whether, during a giveback, the storage is given back regardless of whether the partner node is available to take back the storage. This flag corresponds to the "-require-partner-waiting" parameter of the "storage failover giveback" command. When set to true, the parameter might cause the giveback to proceed, even if the destination node is not ready to receive the aggregate being migrated.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.givebackUpdateFail

Severity

ALERT

Description

This message occurs when GIVEBACK_DONE is not written to the backup mailbox after all other giveback processing is done. The issuing node is no longer in takeover mode, but the partner node cannot boot (without operator intervention) because the partner mailbox claims it has been taken over.

Corrective Action

Boot the previously taken over node. During the boot operation, the node requests confirmation to proceed.

Syslog Message

Failover Monitor: Unexpected error %d while trying to update backup mailbox during giveback

Parameters

errcode (INT): Error code.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.haltUpdateFail

Severity

INFORMATIONAL

Description

This event is issued if we are unable to update the partner state as part of halt processing. This occurrence of this event should not affect the operation of the High Availability (HA) pair.

Corrective Action

(None).

Syslog Message

halt: Unable to update failover monitor with NoTakeover state

Parameters

(None).

cf.fm.hogger

Severity

ERROR

Description

This message occurs when the fast timeout thread is blocked for a very long time and the system can identify threads that might have been responsible for the fast timeout thread not being scheduled.

Corrective Action

Determine why the process is consuming the CPU, and either correct the problem, or end the offending process.

Failover monitor: Process %s ran continuously for %llu ms.

Parameters

procName (STRING): Name of the process that is consuming the CPU.
schedTime (LONGINT): Time for which the process ran without releasing the CPU.

cf.fm.initError

Severity

ALERT

Description

This message occurs when failover monitor initialization fails. If this event occurs, the failover monitor cannot be started. The node will reboot after this event.

Corrective Action

Check the logs for other messages from the failing component listed in the message by using the "event log show" command from the CLI. Also check for errors from other components or errors indicating hardware failures. If the problem occurs again after the node reboots, contact NetApp technical support.

Syslog Message

Failover monitor: initialize(%s) fails.

Parameters

component (STRING): Software component that has failed to initialize.

cf.fm.kernelMismatch

Severity

ERROR

Description

This event is issued when we detect a possible mismatch of kernel versions in the High Availability (HA) pair. This situation is allowed, although takeover may be disabled if the mismatch imposes version differences in the metadata formats (nvram, filesystem, etc.) of the system.

Corrective Action

Upgrade both nodes to the same release.

Syslog Message

Failover monitor: possible kernel mismatch detected local '%s', partner '%s'

Parameters

myVersion (STRING): My version
partnerVersion (STRING): The partner's version

cf.fm.kernelMismatchOk

Severity

INFORMATIONAL

Description

This event is issued when we detect a possible mismatch of kernel versions in the High Availability (HA) pair has been resolved.

Corrective Action

(None).

Syslog Message

Failover monitor: possible kernel mismatch resolved

Parameters

(None).

cf.fm.launch

Severity

INFORMATIONAL

Description

This event is issued when the failover monitor is launched. It occurs very early in the system startup sequence.

Corrective Action

(None).

Syslog Message

Launching failover monitor

Parameters

(None).

cf.fm.lmgrVetoOverride

Deprecated

Deprecated as of version 9.7.

Severity

NOTICE

Description

This message occurs during an SFO aggregate giveback, when system settings indicate that giveback should be vetoed but the veto was overridden by the automated nondisruptive update procedure. The automated nondisruptive update procedure verifies the expected state of aggregate.

Corrective Action

(None).

Syslog Message

"%s" subsystem veto was overridden during giveback operation of "%s" aggregate.

Parameters

subsystem (STRING): Name of the vetoed subsystem.
aggregate (STRING): Name of the aggregate.

cf.fm.localmbReadStatus

Severity

INFORMATIONAL

Description

This message reports the status of a local mailbox disk read.

Corrective Action

(None).

Syslog Message

(None).

Parameters

returncode (INT): Status returned by the read of the local mailbox disk.

cf.fm.lowMemory

Severity

ALERT

Description

This message occurs when the local node does not have sufficient memory to run failover monitor services.

Corrective Action

Verify that the recommended amount of memory is installed on the system. If there is sufficient memory, the error might be related to hardware issues. In this case, capture the console logs, and then call NetApp technical support.

Syslog Message

Takeover is disabled due to insufficient memory.

Parameters

(None).

cf.fm.MBstatusOnBoot

Severity

INFORMATIONAL

Description

This message occurs on system boot when the failover monitor detects that no takeover is in progress.

Corrective Action

(None).

Syslog Message

(None).

Parameters

status (INT): Failover monitor status as reported by the mailbox disk.

cf.fm.mirrorConsistencyOff

Severity

ERROR

Description

This message occurs when the system discovers that the NVRAM mirror consistency option has been disabled. This option should ONLY be disabled under operator control. If mirror consistency is disabled, a takeover can result in a loss of recently logged data.

Corrective Action

Run the "cf enable mirrorconsistency" advanced privilege nodeshell command to reenable mirror consistency.

Syslog Message

Failover monitor: NVRAM mirror consistency is disabled.

Parameters

(None).

cf.fm.missingAdapter

Severity

ERROR

Description

This message occurs when the high availability (HA) mode is set to "ha" but no interconnect adapter is found. This is an error indicating a misconfiguration of the system.

Corrective Action

Install the HA interconnect adapter, or if not using ASA r2, set the HA mode to "non_ha" by using the "storage failover modify -mode non_ha" command.

Syslog Message

Warning: HA mode is set to "ha" but the interconnect adapter is not found.

Parameters

(None).

cf.fm.monitorBlocked

Severity

ERROR

Description

This event is issued if the failover monitor has been blocked for an unacceptable amount of time. The event indicates a heavy load on the system and may result in an unexpected (false) takeover.

Corrective Action

Check CPU load and make sure system is not over subscribed.

Syslog Message

WARNING failover monitor was blocked for %lld secs

Parameters

secs (LONGINT): Number of seconds that the failover monitor has been blocked

cf.fm.noearlyrelease

Severity

INFORMATIONAL

Description

This message occurs when an early release of reservations is not done.

Corrective Action

(None).

Syslog Message

(None).

Parameters

state (INT): Partner firmware state.
version (INT): Partner firmware version.

cf.fm.nofwUpdateinTO

Severity

INFORMATIONAL

Description

This message occurs when there is no progress in the firmware status received from the partner.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.fm.noICbutFoundMb

Severity

INFORMATIONAL

Description

This message occurs when no firmware state is obtained over the High Availability (HA) interconnect but the mailbox disks are found.

Corrective Action

(None).

Syslog Message

(None).

Parameters

status (INT): Status of the active/active configuration based on the mailbox disks.

cf.fm.nombdisks

Severity

INFORMATIONAL

Description

This messages indicates the status of the local mailbox disks.

Corrective Action

(None).

Syslog Message

(None).

Parameters

returncode (INT): Return value from the call to read the local mailbox disks.
mbstatus (INT): Current status of the active/active configuration.

cf.fm.noMBdisksOnSFUP

Severity

ERROR

Description

This message occurs when no local mailbox disks are detected, even though the partner performed a giveback.

Corrective Action

Check connectivity to all disks by running the "run local storage show" command on each partner, and then comparing the results.

Syslog Message

Could not find the local mailbox disks after a giveback. Check connectivity to all disks.

Parameters

(None).

cf.fm.noMBDisksOrIc

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot access the local mailbox disks and cannot determine partner status through the high-availability (HA) interconnect.

Corrective Action

Check connectivity to all disks by running the "run local storage show" command on each partner, and then comparing the results. Verify that the interconnect cables are properly cabled.

Syslog Message

Could not find the local mailbox disks. Could not determine the firmware state of the partner through the HA interconnect.

Parameters

(None).

cf.fm.noPartnerVariable

Severity

ERROR

Description

This message occurs when the system cannot identify the serial number of the partner because the firmware variable is not set.

Corrective Action

1) Use the "storage failover show" command to verify that that high-availability (HA) is enabled. 2) If HA is enabled, there might be too many environment variables defined. Halt the system, and then enter the "printenv" command at the LOADER prompt. Use the "unsetenv" command to remove unneeded environment variables.

Syslog Message

Unknown partner serial number: firmware %s variable is not set.

Parameters

variable (STRING): Name of the firmware variable.

cf.fm.noTakeoverNoRc

Severity

ERROR

Description

This message indicates that we cannot do takeover during a no-rc boot.

Corrective Action

Reboot the node normally

Syslog Message

Failover monitor: reboot normally to enable takeover

Parameters

(None).

cf.fm.notkoverBadMbox

Severity

NOTICE

Description

This event is issued when we discover that a mailbox is uninitialized.

Corrective Action

(None).

Syslog Message

Failover monitor: uninitialized %s mailbox data detected

Parameters

whose (STRING): Indicates which mailbox is uninitialized

cf.fm.notkoverClusterDisable

Severity

ERROR

Description

This event is issued when we discover that failover between the High Availability (HA) pair has been
disabled. Failover may be disabled under operator control or when a condition has been discovered (e.g.,
kernel mismatch) that necessitates disabling of the HA pair.

Corrective Action

Resolve the reason provided in the message.

Syslog Message

Failover monitor: takeover disabled (%s)

Parameters

reason (STRING): The reason code for disabling the HA pair

cf.fm.notkoverOperatorDeny

Severity

ERROR

Description

This event is issued when we discover that the operator has disabled takeover-by-partner.

Corrective Action

If takeover by the partner is desired, re-enable takeover.

Syslog Message

Failover monitor: takeover by partner disabled

Parameters

(None).

cf.fm.notkoverOperatorDisableNvram

Severity

ERROR

Description

This event is issued when we discover that the operator has disabled the nvram mirror.

Corrective Action

Re-enable NVRAM mirroring

Syslog Message

Failover monitor: nvram mirror disabled

Parameters

(None).

cf.fm.overwriteState

Severity

NOTICE

Description

This event is issued when the operator has manually intervened and has forced an overwrite of failover monitor state.

Corrective Action

(None).

Syslog Message

System continuing after overwriting failover monitor state!

Parameters

(None).

cf.fm.panicAfterToDone

Severity

ALERT

Description

This message occurs when a node panics too soon after the completion of a takeover. The node reboots in normal mode to avoid recursive panics.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failover monitor: Panic occurred too soon after takeover was completed (currentTime %llu ms, Takeover completed %llu ms).

Parameters

currentTime (LONGINT): Time when the panic occurred.
ToDoneTime (LONGINT): Time when the takeover was completed.

cf.fm.panicInToMode

Severity

EMERGENCY

Description

This message occurs when the node panics after taking over the partner node. When the node comes back up, it will do so in takeover mode.

Corrective Action

Attempt to find the panic string in the event logs by using the "event log show" command from the CLI, and then look up the string by using the Panic Message Analyzer tool on the NetApp support site: http://mysupport.netapp.com/NOW/cgi-bin/pmsg/. Contact NetApp technical support to confirm the analysis.

Syslog Message

Failover monitor: Panic in takeover mode; takeover will occur on reboot.

Parameters

(None).

cf.fm.panicOnGBforced

Severity

ALERT

Description

This message occurs when a node panics while a forced giveback is in progress. The node performs giveback and releases partner resources on reboot.

Corrective Action

Capture the console log and contact NetApp technical support.

Failover monitor: Panic during forced giveback; node will release partner resources on reboot.

Parameters

(None).

cf.fm.panicToInProgress

Severity

ALERT

Description

This message occurs when a node panics while the takeover is in progress. The node reboots in normal mode with takeover disabled.

Corrective Action

Capture the console log and contact NetApp technical support.

Syslog Message

Failover monitor: Panic during takeover; takeover will be disabled on reboot.

Parameters

(None).

cf.fm.partner

Severity

INFORMATIONAL

Description

This event is issued to announce the name of the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: partner '%s'

Parameters

partner (STRING): The name of the High Availability (HA) partner

cf.fm.partnerChange

Severity

INFORMATIONAL

Description

This event is issued to announce a change in the name of the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: partner hostname has changed: '%s'

Parameters

partner (STRING): The name of the High Availability (HA) partner

cf.fm.partnerFwState

Severity

INFORMATIONAL

Description

This message reports the firmware status of the partner.

Corrective Action

(None).

Syslog Message

(None).

Parameters

state (INT): Partner firmware status.

cf.fm.partnerFwTransition

Severity

INFORMATIONAL

Description

This message occurs when there is a change in the partner firmware state.

Corrective Action

(None).

Syslog Message

(None).

Parameters

prevstate (STRING): Previously reported partner firmware state.
newstate (STRING): New firmware state, as reported by the partner.
progresscounter (LONGINT): New progress counter, as reported by the partner.

cf.fm.partnerICFwVersion

Severity

INFORMATIONAL

Description

This message occurs when the partner is using a different version of the interconnect firmware.

Corrective Action

(None).

Syslog Message

(None).

Parameters

version (INT): Partner firmware version.

cf.fm.partnerSysid

Severity

INFORMATIONAL

Description

This event is issued to announce the system id of the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: partner system id: %u

Parameters

sysid (LONGINT): The sysid of the High Availability (HA) partner

cf.fm.partnerSysidChange

Severity

INFORMATIONAL

Description

This event is issued to announce a change in the system id of the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: partner system id has changed: %u

Parameters

sysid (LONGINT): The sysid of the High Availability (HA) partner

cf.fm.partnerVolumesOnline

Severity

NOTICE

Description

This event is issued to indicate that the partner's volumes have been brought on-line as part of early takeover processing.

Corrective Action

(None).

Syslog Message

Failover monitor: partner volumes on-line

Parameters

(None).

cf.fm.replayOnlyTakeover

Severity

INFORMATIONAL

Description

This event is issued when the failover monitor initiates a replay-only takeover, which essentially means performing takeover till the partner logs have been replayed, and then initiating a giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: Starting replay-only takeover. A giveback will be initiated after the partner logs have been replayed.

Parameters

(None).

cf.fm.replayOnReboot

Severity

INFORMATIONAL

Description

This message occurs if a node panics in takeover mode and replay of the partner logs will be attempted on reboot.

Corrective Action

(None).

Syslog Message

Failover monitor: replay of partner logs will be attempted on reboot.

Parameters

(None).

cf.fm.reserveDisksOff

Severity

EMERGENCY

Description

This event is issued if we discover that disk reservations have been disabled. If this event occurs, contact NetApp technical support.

Corrective Action

(Call support).

Syslog Message

Failover monitor: disk reservations disabled

Parameters

(None).

cf.fm.reserveMBproblem

Severity

ERROR

Description

This message occurs when ONTAP® cannot reserve a high-availability (HA) partner mailbox disk during a takeover.

Corrective Action

Check connectivity to all disks by using the "storage disk show -fields diskpathnames" command to verify each node in the HA pair has access to all disks. If some disks are not fully accessible, confirm the disks are correctly cabled. To check whether one HA node cannot access disks that are visible to the HA partner node, use the "storage failover show -fields local-missing-disks, partner-missing-disks" command.

Syslog Message

Takeover has been aborted because the partner mailbox disk: %s could not be reserved. Error: %u.

Parameters

diskname (STRING): Partner mailbox disk that ONTAP could not reserve.
disk_error (INT): Disk reservation error that was encountered.

cf.fm.slowTimeoutBlocked

Severity

NOTICE

Description

This message occurs when the High Availability slow timeout thread has been blocked for an unacceptable amount of time. The event indicates a heavy load on the system and may result in an unexpected takeover.

Corrective Action

Check CPU load and make sure system is not over subscribed. Contact NetApp technical support for further assistance.

High Availability slow timeout was blocked for %lld secs.

Parameters

secs (LONGINT): Number of seconds that the High Availability (HA) slow timeout thread has been blocked.

cf.fm.smsVetoOverride

Deprecated

Deprecated as of version 9.7.

Severity

NOTICE

Description

This message occurs during an SFO aggregate giveback, when the SnapMirror® subsystem indicates that giveback should be vetoed but the veto was overridden by the automated nondisruptive update procedure. The automated nondisruptive update procedure verifies the expected state of the aggregate.

Corrective Action

(None).

Syslog Message

"%s" subsystem veto was overridden during giveback operation of "%s" aggregate.

Parameters

subsystem (STRING): Name of the vetoed subsystem.
aggregate (STRING): Name of the aggregate.

cf.fm.softError

Severity

ERROR

Description

This event is issued when a "soft error" has occurred in the failover monitor.

Corrective Action

Resolve the failure listed in the message.

Syslog Message

Failover monitor: %s

Parameters

reason (STRING): Description of the failure.

cf.fm.takeoverComplete

Severity

NOTICE

Description

This message occurs when a takeover succeeds.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover completed

Parameters

token (STRING): Unique token that identifies a failover instance.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.takeoverDetectionSeconds.Default

Severity

ERROR

Description

This message occurs when the takeover detection time is set to a value less than the DEFAULT_FIRMWARE_TIMEOUTS setting. This can result in false takeovers and takeovers without diagnostic core dumps.

Corrective Action

Modify the takeover detection time to the recommended value by using the "storage failover modify -detection-time" command.

Syslog Message

Takeover detection time is set to %d seconds, which is below the recommended value of %d seconds. False takeovers and takeovers without diagnostic core dumps might occur.

Parameters

SECONDS (INT): Value that the takeover detection time is set to.
FIRMWARE_TIMEOUT_DEF (INT): Recommended value.

cf.fm.takeoverDetectionSeconds.Kernel

Severity

ERROR

Description

This message occurs when the takeover detection time is set to a value less than the KERNEL_TIMEOUT setting (as specified by the "sk.process.timeout.override" option). This can result in takeovers without accompanying diagnostic core dumps of the taken over node.

Corrective Action

Set the takeover detection time to the recommended value by using the "storage failover modify -detection-time" command.

Syslog Message

Takeover detection time is set to %d seconds, which is below %d (= sk.process.timeout.override + 5)

seconds. Takeovers without diagnostic core dumps might occur.

Parameters

SECONDS (INT): Value that the takeover detection time is set to.
KERNEL_TIMEOUT (INT): Minimum value that should be used.

cf.fm.takeoverDuration

Severity

INFORMATIONAL

Description

This message occurs when a takeover is completed successfully.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover duration time is %llu seconds.

Parameters

takeover_duration (LONGINT): Takeover duration time.

cf.fm.takeoverFailed

Severity

ALERT

Description

This message occurs when the failover monitor determines that a takeover has failed. The reason code is a string that describes the reason for the failure. Any data LIFs that were migrated as part of the takeover operation are not automatically reverted.

Corrective Action

Resolve the issue based on the reason logged in the message.

Syslog Message

Failover monitor: takeover failed '%s'

Parameters

reason (STRING): Internal reason code for the failure.
token (STRING): Unique token that identifies a failover instance.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.takeoverStarted

Severity

NOTICE

Description

This message occurs when the failover monitor initiates a takeover.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover started

Parameters

token (STRING): Unique token that identifies a failover instance.
partner_node_uuid (STRING): UUID of the partner node.

cf.fm.timeMasterStatus

Severity

INFORMATIONAL

Description

This event is when we determine our status as time master or slave.

Corrective Action

(None).

Syslog Message

Acting as time %s

Parameters

masterOrSlave (STRING): Master or Slave

cf.fm.TODetectionSecs.reset

Severity

INFORMATIONAL

Description

This message occurs when the current setting of takeover detection time is shorter than the minimum takeover detection time allowed by this version of Data ONTAP®. This can result in false takeovers or takeovers without diagnostic core dumps. Data ONTAP resets the takeover detection time to the new minimum.

Corrective Action

(None).

Syslog Message

Takeover detection time was set to %d seconds, shorter than the minimum allowed. Reset the detection time to a new minimum of %d seconds.

Parameters

SECONDS (INT): Current takeover detection seconds.
FIRMWARE_TIMEOUT_DEF (INT): New default takeover detection seconds.

cf.fm.transitTimeChange

Severity

INFORMATIONAL

Description

This message occurs when you set the takeover or giveback transit timeout to a value other than the default value. During takeover or giveback, if the timeout is exceeded by a subsystem during the takeover/giveback processing, a panic occurs. If the timeout is set too high, longer client outages might occur instead of aborting the takeover/giveback.

Corrective Action

(None).

Syslog Message

(None).

Parameters

SECONDS (INT): Transit timeout value (in seconds).
DEFAULT_VAL (INT): Default transit timeout value (in seconds).

cf.fm.undoFailedTakeover

Severity

NOTICE

Description

This event is issued when we initiate an undo of a failed takeover.

Corrective Action

(None).

Syslog Message

Failover monitor: initiate giveback due to failed takeover

Parameters

(None).

cf.fm.unexpectedPartner

Severity

ERROR

Description

This message occurs when the HA mode is set to "non_ha" but the HA mode was set to "ha" previously. This is not an error, but indicates a possible misconfiguration of the system.

Corrective Action

Determine whether the HA mode should be set to "ha", and if so, set it.

Warning: HA mode is set to "non_ha" but the node once had a storage failover partner.

Parameters

(None).

cf.fm.versionMismatch

Severity

ALERT

Description

This event occurs when a version mismatch is detected during internode initialization. Each node transmits its version information to its partner. If a mismatch is detected, the High Availability (HA) takeover capability is disabled.

Corrective Action

Boot both nodes on the same release.

Syslog Message

Failover monitor: %s version mismatch detected: %d/%d

Parameters

subsystem (STRING): The name of the versioned subsystem
myVersion (INT): My version
partnerVersion (INT): The partner's version

cf.fm.waitBeforeWFG

Severity

INFORMATIONAL

Description

This message occurs when a system waits, during boot, for a module to come up before declaring itself ready for giveback. Examples include waiting for the NVRAM battery to be charged.

Corrective Action

(None).

Syslog Message

Failover monitor: waited %llu seconds for module %s.

Parameters

secs (LONGINT): Amount of time spent waiting, in seconds.
module_name (STRING): Name of the module the system is waiting for.

cf.fmmbx events

cf.fmmbx.mccip.policy.enabled

Severity

NOTICE

Description

This message occurs when the system has enabled MCCIP mailbox disk IO policy

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.fmns events

cf.fmns.skipped.disk

Severity

NOTICE

Description

This message occurs when a node is in "Waiting For Giveback" state and the Failover Monitor Node State (fmns)module skips a local disk while releasing the reservations in that state.

Corrective Action

(None).

Syslog Message

While releasing the reservations in "Waiting For Giveback" state Failover Monitor Node State(fmns) module skipped the disk %s that is owned by %u and reserved by %u.

Parameters

uid_string (STRING): Name of the disk which was skipped by fmns.
down_owner (INT): The system ID of the node that owns this disk.
resvn_owner (INT): The system ID of the node that has a reservation on this disk.

cf.fsm events

cf.fsm.autoGBTkoverOnPanic

Severity

INFORMATIONAL

Description

This message occurs when a node initiates an automatic giveback to its partner following a takeover that was due to a panic on the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: Automatic giveback was initiated following a takeover that was caused by a panic on the partner.

Parameters

(None).

cf.fsm.autoGBTkoverOnReboot

Severity

INFORMATIONAL

Description

This message occurs when a node initiates an automatic giveback to its partner following a takeover that was due to a reboot of the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: Automatic giveback was initiated following a takeover that was caused by the partner reboot.

Parameters

(None).

cf.fsm.autoGivebackAttemptsExceeded

Severity

EMERGENCY

Description

This event is issued when auto giveback is disabled due to a ping-pong situation (autoGB followed by t/o followed by autoGB…)

Corrective Action

Examine the logs and/or console output from the partner node. Resolve the issue which prevents the node from staying up.

Syslog Message

Failover monitor: Automatic giveback is being disabled due to exceeding %d attempts in %d minutes.

Parameters

attempts (INT): Number of automatic givebacks attempted
minutes (INT): Time period where the automatic givebacks were attempted

cf.fsm.autoGivebackDelayed

Severity

INFORMATIONAL

Description

This message occurs when an automatic giveback is delayed because 'Delay Before Auto Giveback' is set to a non-zero number. If you want to eliminate the delay before automatic giveback occurs, you can use the command "storage failover modify -delay-seconds" to set it to zero.

Corrective Action

(None).

Syslog Message

Failover monitor: Automatic giveback was delayed by %d seconds due to a non-zero value of 'Delay Before Auto Giveback'.

Parameters

seconds (INT): Number of seconds by which automatic giveback was delayed.

cf.fsm.autoGivebackReleasingReservations

Severity

NOTICE

Description

This event is generated when we release the disk reservations in preparation for an automatic giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: Releasing disk reservations in preparation for an automatic giveback

Parameters

(None).

cf.fsm.autoGivebackStarted

Severity

INFORMATIONAL

Description

This event is issued when an automatic giveback is initiated.

Corrective Action

(None).

Syslog Message

Failover monitor: Automatic giveback started

Parameters

(None).

cf.fsm.autoGivebackVetoed

Severity

ERROR

Description

This event is issued when one or more subsystems have vetoed the automatic giveback.

Corrective Action

Terminate the long-running jobs and auto giveback will be successful next time it is attempted.

Syslog Message

Failover monitor: Automatic giveback has been deferred due to long running operations

Parameters

(None).

cf.fsm.autoTakeoverCancelled

Severity

NOTICE

Description

This event is issued when the failover monitor cancels a pending takeover.

Corrective Action

(None).

Syslog Message

Failover monitor: pending takeover cancelled

Parameters

(None).

cf.fsm.backupMailboxError

Severity

ERROR

Description

This message occurs when the failover monitor determines that an error was observed in the partner's mailbox.

Corrective Action

Correct the issues preventing the node from accessing the partner's mailbox disks. Check for cabling, host bus adapter (HBA), storage controller or drive/LUN issues. You can also use Multipathing to provide a redundant connection to the mailbox disk.

Syslog Message

Failover monitor: partner mailbox error detected.

Parameters

(None).

cf.fsm.backupMailboxOk

Severity

NOTICE

Description

This event is issued when the failover monitor has determined that an error in the backup's mailbox has been fixed.

Corrective Action

(None).

Syslog Message

Failover monitor: backup mailbox OK

Parameters

(None).

cf.fsm.checkingForBigJobs

Severity

INFORMATIONAL

Description

This event is generated when we want to initiate an automatic giveback and we're checking for long running operations which might veto our plans.

Corrective Action

(None).

Syslog Message

Failover monitor: Checking for long running operations in preparation for an automatic giveback.

Parameters

(None).

cf.fsm.clam.reqPartnerShtdwn

Severity

ALERT

Description

This message occurs when a node's connectivity, liveness, availability monitor (CLAM) requests a graceful shutdown of its HA partner to trigger a takeover. This shutdown request is made because both HA and cluster connectivity is down.

Corrective Action

Restore connectivity across the cluster and HA ports. If the cluster and HA ports are reporting the links are down, check the cabling and switch port configuration. If the connectivity cannot be repaired, contact NetApp technical support.

Syslog Message

CLAM requests graceful shutdown of the HA partner to initiate a takeover while NVLOG is out of sync. Cluster and HA connectivity is down.

Parameters

(None).

cf.fsm.clam.shtdwnThruMbx

Severity

ALERT

Description

This message occurs when a node acknowledges a shutdown request from its HA partner. The node shuts down immediately.

Corrective Action

Restore connectivity across the cluster and HA ports. If the cluster and HA ports are reporting the links are down, check the cabling and switch port configuration. If the connectivity cannot be repaired, contact NetApp technical support.

Syslog Message

A connectivity, liveness, availability monitor (CLAM) shutdown request was acknowledged through mailbox.

Parameters

(None).

cf.fsm.cliTakeoverCancelled

Severity

NOTICE

Description

This event is issued when the failover monitor cancels a pending takeover issued through a CLI.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover cannot be performed because of reason (%s)

Parameters

reason (STRING): Reason why takeover cannot occur

cf.fsm.firmwareStatus

Severity

INFORMATIONAL

Description

This event is issued when we detect an altered firmware status update from the partner.

Corrective Action

(None).

Syslog Message

Failover monitor: partner %s

Parameters

reason (STRING): Partner status

cf.fsm.givebackHung

Severity

ALERT

Description

This event occurs when the failover monitor detects that the giveback process is hung.

Corrective Action

Collect the resulting core file and provide it to Customer Support.

Syslog Message

Failover monitor: giveback process is hung ('%s')

Parameters

moduleName (STRING): The name of the module that the hang occurred in.

cf.fsm.givebackMaxRetries

Severity

ALERT

Description

This event is called when the giveback retry count has been exceeded. This situation exists when the system is unable either to takeover or giveback. It may be due to either a hardware bug (e.g., the disk subsystem is hung) or a software bug.

Corrective Action

Examine the logs and determine why the giveback is failing. Correct that problem and retry the giveback.

Syslog Message

Failover monitor: giveback has exceeded max retry count

Parameters

> **retries** (INT): Number of retries attempted.

cf.fsm.nfo.acceptTakeoverReq

Severity

> NOTICE

Description

> This message occurs when the system starts a negotiated takeover of its partner, and requests a graceful shutdown of the partner.

Corrective Action

> (None).

Syslog Message

> Negotiated failover: starting takeover and shutdown of partner (%s), will take over in at most %d secs. Reason: %s.

Parameters

> **partnerName** (STRING): Name of partner node.
> **maxTakeoverTime** (INT): Maximum amount of time to wait for the partner to shut down before starting takeover, in seconds.
> **partnerReason** (STRING): Reason for the initiation of the takeover.

cf.fsm.nfo.clearReqTakeover

Severity

> NOTICE

Description

> This event is called when the system clears a request for takeover by its partner.

Corrective Action

> (None).

Syslog Message

> Negotiated failover: clearing partner takeover request

Parameters

> (None).

cf.fsm.nfo.delayingGracefulShutdown

Severity

> ERROR

Description

> This event is called when the system has been asked to shutdown by its partner as the result of the negotiated failover mechanism, but the system can not shut down due to a specific reason.

Corrective Action

Using the information provided in the message, determine why shutdown cannot be invoked. Resolve that problem and retry the takeover request.

Syslog Message

Negotiated failover: delaying shutdown due to %s

Parameters

why (STRING): Indicates the cause of the delay.

cf.fsm.nfo.disable

Severity

ERROR

Description

This event is called when negotiated failover is disabled for a particular module.

Corrective Action

Examine previous messages for failures related to the type of NFO.

Syslog Message

Negotiated failover: disabling negotiated failover for module %s

Parameters

mod (STRING): Negotiated failover module or type.

cf.fsm.nfo.disable.shelfversion

Severity

ERROR

Description

This event is called when negotiated failover is disabled due to Shelf Count message version mismatch.

Corrective Action

Upgrade both nodes to the same release.

Syslog Message

Negotiated failover: disabling negotiated failover due to version mis-match.

Parameters

(None).

cf.fsm.nfo.enable

Severity

NOTICE

Description

This event is called when negotiated failover is enabled for a particular module.

Corrective Action

(None).

Syslog Message

Negotiated failover: enabling negotiated failover for module %s

Parameters

mod (STRING): NFO module (or type)

cf.fsm.nfo.gracefulShutdownTimerExpired

Severity

NOTICE

Description

This event is called when the maximum time the system will wait for the partner to shutdown gracefully has passed. At this point the system takes over by force.

Corrective Action

(None).

Syslog Message

Negotiated failover: partner graceful shutdown appears hung, taking over

Parameters

(None).

cf.fsm.nfo.moduleImpairmentChange

Severity

ERROR

Description

This event is called when a module which is participating in negotiated failover changes from "unimpaired" to "impaired" or vice versa.

Corrective Action

Check the state of the module listed in the message.

Syslog Message

Negotiated failover: module %s is now %s

Parameters

mod (STRING): Type of negotiated failover
impairment (STRING): Either unimpared or impaired

cf.fsm.nfo.partnerShutdown

Severity

NOTICE

Description

This event is called when the system sees that the partner has finished shutting down gracefully during negotiated failover.

Corrective Action

(None).

Syslog Message

Negotiated failover: partner has shutdown

Parameters

(None).

cf.fsm.nfo.rejectTakeoverReqDueToImpairment

Severity

ERROR

Description

This message occurs when the system rejects a request by its partner to take it over because the system is itself impaired.

Corrective Action

Use the "storage failover show" command to determine why takeover is not possible. Resolve that problem and retry the takeover request.

Syslog Message

Negotiated failover: rejecting takeover request by partner due to own impairment.

Parameters

(None).

cf.fsm.nfo.rejectTakeoverReqDueToOwnReq

Severity

ERROR

Description

This event is called when the system rejects a request by its partner to take it over because the system has itself recently requested takeover by its partner. Rejecting this request prevents each system trying to takeover its partner simultaneously. If the partner persists and the system doesn't become impaired the request will soon be granted.

Corrective Action

Resolve any impairment issues reported in previous messages that would cause takeover. If takeover is requested by the operator, it should only be requested on one node.

Negotiated failover: rejecting takeover request by partner due to own recent takeover request.

Parameters

(None).

cf.fsm.nfo.startingGracefulShutdown

Severity

NOTICE

Description

This event is called when the system has been asked to shutdown by its partner as the result of the negotiated failover mechanism. The system responds by shutting down gracefully, shutting down services in an orderly manner.

Corrective Action

(None).

Syslog Message

Negotiated failover: starting graceful shutdown.

Parameters

(None).

cf.fsm.nfo.takeoverPendingCancel

Severity

ERROR

Description

This message occurs when the system is waiting for the partner to shutdown gracefully and failover is disabled, canceling the pending takeover.

Corrective Action

Use the "storage failover modify -enabled true" command to reenable failover.

Syslog Message

Negotiated failover: pending takeover canceled.

Parameters

(None).

cf.fsm.partnerNotResponding

Severity

NOTICE

Description

This event is issued when we detect that the partner node is not responsive.

Corrective Action

(None).

Syslog Message

Failover monitor: partner not responding

Parameters

(None).

cf.fsm.partnerOk

Severity

NOTICE

Description

This event is issued when we detect that the partner node, which was previously not responsive, is now OK.

Corrective Action

(None).

Syslog Message

Failover monitor: partner ok

Parameters

(None).

cf.fsm.releasingReservations

Severity

INFORMATIONAL

Description

This event is generated when we release the disk reservations in preparation for a manual giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: Releasing disk reservations in preparation for giveback

Parameters

(None).

cf.fsm.shelfCount.fewerShelves

Severity

ALERT

Description

This event is emitted when we detect that the partner sees more of our disk shelves than we do. In other words, it sees more shelves on its FCAL B loop than we see on our A loop. This is probably due to a

cabling problem or a broken FCAL host adaptor. If "disk_shelf" negotiated failover is enabled, this condition should lead to a takeover by the partner if the partner is otherwise able to take us over.

Corrective Action

Resolve cabling issues which are preventing both nodes from seeing the same disks.

Syslog Message

Disk shelf count mismatch: partner sees more of our A shelves on its B loop (%d) than we do (%d).

Parameters

bShelves (INT): Number of our shelves which the partner can see
aShelves (INT): Number of shelves which we can see

cf.fsm.stateTransit

Severity

INFORMATIONAL

Description

This event is issued when a state transition is detected. Typically, this indication means that the failover monitor is about to either takeover its partner or giveback to its partner. This can happen as the result of timers going of, operator command, or an indication from the partner that a fault has been detected.

Corrective Action

(None).

Syslog Message

Failover monitor: %s -→ %s

Parameters

oldState (STRING): The old failover monitor state.
newState (STRING): The new failover monitor state.
elem (STRING): The name of the FSM element that has caused the state transition to occur. This value is dependent upon the FSM implementation.

cf.fsm.takeover.bootingExp

Severity

ALERT

Description

This event is issued when an automatic takeover is initiated after detecting that the partner boot process is hung trying to load the kernel.

Corrective Action

Please capture console log of partner filer and contact Customer Support

Syslog Message

Failover monitor: automatic takeover attempted after detecting that partner is hung loading kernel while booting

Parameters

(None).

cf.fsm.takeover.disaster

Severity

INFORMATIONAL

Description

This message occurs when an operator-requested disaster recovery (DR) takeover is initiated.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover attempted after "cf forcetakeover -d" command.

Parameters

(None).

cf.fsm.takeover.early

Severity

INFORMATIONAL

Description

This event is issued when a filer takes over its partner while booting up in takeover mode.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover resumption attempted after reboot

Parameters

(None).

cf.fsm.takeover.forced

Severity

INFORMATIONAL

Description

This message occurs when an operator-requested forced takeover is initiated.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover attempted after "cf forcetakeover" or "storage failover takeover -option force" in advanced privilege.

Parameters

(None).

cf.fsm.takeover.mdp

Severity

ALERT

Description

This event is issued when an automatic takeover is initiated after detecting that the partner has panicked due to a multi-disk failure

Corrective Action

Please check the connectivity of the partner to it's disks and shelves and contact customer support.

Syslog Message

Failover monitor: takeover attempted after multi-disk failure on partner

Parameters

(None).

cf.fsm.takeover.ndu

Severity

INFORMATIONAL

Description

This message occurs when an operator-requested takeover is initiated with the "cf takeover -n" or "storage failover takeover -option allow-version-mismatch" command.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover attempted after "cf takeover -n" or "storage failover takeover -option allow-version-mismatch" command.

Parameters

(None).

cf.fsm.takeover.nfo

Severity

INFORMATIONAL

Description

This message occurs when an operator-requested takeover is initiated with the "storage failover takeover" command.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover attempted after "storage failover takeover" command.

Parameters

(None).

cf.fsm.takeover.noHeartbeat

Severity

ALERT

Description

This message occurs when a node detects no heartbeat from the partner, indicating that the partner is not functioning. The node will attempt an automatic takeover.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failover monitor: Takeover initiated after no heartbeat was detected from the partner node.

Parameters

(None).

cf.fsm.takeover.normal

Severity

INFORMATIONAL

Description

This message occurs when an operator-requested takeover is initiated with the "storage failover takeover -option immediate" command, or when Kernel Cluster Services Connectivity, Liveness and Availability Monitor (CLAM) triggers a takeover after determining that the partner node is out of "CLAM quorom".

Corrective Action

(None).

Syslog Message

Failover monitor: %s attempted

Parameters

reason (STRING): Reason a takeover of the partner was triggered. Possible values are "Operator initiated immediate takeover" and "CLAM initiated takeover".

cf.fsm.takeover.on.halt

Severity

INFORMATIONAL

Description

This message occurs when one node in a high-availability (HA) pair initiates an automatic takeover after detecting that its partner node has halted.

Corrective Action

(None).

Syslog Message

Failover monitor: Node initiated automatic takeover after detecting that its partner node has halted.

Parameters

(None).

cf.fsm.takeover.on.reboot

Severity

INFORMATIONAL

Description

This message occurs when one node in a High Availability (HA) pair initiates an automatic takeover after detecting that its partner node is rebooting.

Corrective Action

(None).

Syslog Message

Failover monitor: One node initiated automatic takeover after detecting that its partner node is rebooting.

Parameters

(None).

cf.fsm.takeover.operatorExp

Severity

NOTICE

Description

This event is issued when an automatic takeover is initiated after detecting that the operator timer has expired. This may happen when the operator has failed to respond to a question or not entered a required command during boot.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover attempted after operator timeout expired on partner

Parameters

(None).

cf.fsm.takeover.panic

Severity

ALERT

Description

This message occurs when an automatic takeover is initiated after detecting that the partner has panicked.

Corrective Action

Attempt to find the panic string in the event logs by using the "event log show" command from the CLI, and then look up the string by using the Panic Message Analyzer tool on the NetApp support site: http://mysupport.netapp.com/NOW/cgi-bin/pmsg/. Contact NetApp technical support to confirm the analysis.

Syslog Message

Failover monitor: takeover attempted after partner panic.

Parameters

(None).

cf.fsm.takeover.postFailed

Severity

ALERT

Description

This event is issued when an automatic takeover is initiated after detecting that the partner's power-on self-test has failed.

Corrective Action

Please run hardware diagnostics on partner filer and contact Customer Support

Syslog Message

Failover monitor: takeover attempted after partner POST failed

Parameters

(None).

cf.fsm.takeover.rebootExp

Severity

ALERT

Description

This message occurs when an automatic takeover is initiated after detecting that the partner boot process is hung.

Corrective Action

Capture console log of partner node and contact NetApp technical support.

Syslog Message

Failover monitor: automatic takeover attempted after detecting that partner is hung in boot.

Parameters

(None).

cf.fsm.takeover.shortUptime

Severity

ALERT

Description

This message occurs when an automatic takeover is initiated after detecting that the partner died very shortly after booting up.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failover monitor: takeover attempted after partner went down shortly after booting up

Parameters

(None).

cf.fsm.takeover.sparecoreExp

Severity

ALERT

Description

This message occurs when an automatic takeover is initiated by the local node after it detects that the partner node has panicked, and that the partner has not initiated a main memory core dump to disk in a reasonable amount of time.

Corrective Action

Capture the console log of the partner node, and then contact NetApp technical support.

Syslog Message

A takeover was attempted by the local node after sparecore timeout expired on the partner node.

Parameters

(None).

cf.fsm.takeoverByPartnerDisabled

Severity

ERROR

Description

This message occurs when the failover monitor determines that takeover by the partner is disabled.

Corrective Action

Find the reason for the error message (it is surrounded by parentheses). Based on that reason, the corrective action is one of the following: -allowed: Takeover is allowed; you do not need to take any action. -Controller failover (CFO) is not initialized: Make sure that the high-availability (HA) pair is set up correctly. Contact NetApp technical support if you need assistance. -Controller is in non-HA mode: Set the HA mode to "ha" by using the "storage failover modify -mode ha" command to activate HA functionality. This corrective action does not apply for ASA r2. -Takeover disabled: Use the "storage failover modify -enabled true" command to reenable HA functionality. -partner mailbox disks not accessible or invalid: Check connectivity to all disks by running the "run local storage show" command on each node, and then comparing the results. Resolve the differences in disks visible to both systems. Verify that the interconnect cables are properly cabled. Failover monitor version mismatch: Make sure that both the local and partner node are running the same version of Data ONTAP®. -Takeover disabled by partner: Use the "storage failover modify -enabled true" command to reenable HA functionality. -Takeover disabled by operator: Use the "storage failover modify -enabled true" command to reenable HA functionality. -NVRAM size mismatch: Make sure that the local NVRAM (nonvolatile random-access memory) size matches the partner node. -version mismatch: Make sure that both the local and partner nodes are running the same version of Data ONTAP. -interconnect error: Make sure that the interconnect link is connected and functioning. -partner booting: Wait for the partner node to complete its booting process, and then try takeover. -shelf too hot: Make sure that the disk shelf temperature is properly regulated. -partner is performing revert: Wait for the partner node to complete the revert process, and then try takeover. -revert is in progress: Wait for the local node to complete the revert process, and then try takeover. -partner is attempting takeover: Cannot perform a takeover operation while the partner node is attempting a takeover. -takeover is in progress: The local node is already taken over or is trying to take over the partner node. -partner halted in notakeover mode: The partner node was most likely halted using the "halt -f" command; reboot the partner node, and then try again. -unsynchronized log: Make sure that the interconnect link is connected and functioning. -unknown notakeover reasons: Contact NetApp technical support. -waiting for partner to recover: The partner has not booted completely after giveback; wait for the partner to come back up completely. -low memory: Contact NetApp technical support to upgrade. -local halt in progress: The local node is about to halt; try again after the reboot. -status of backup mailbox is uncertain: Check connectivity to all disks by running the "run local storage show" command on each node, and then comparing the results. Resolve the differences in disks visible to both systems. Verify that the interconnect cables are properly cabled. -automatic takeover disabled: Use the "storage failover takeover" command manually. -metrocluster disaster recovery operation is in progress: The local node is performing a MetroCluster(tm) disaster recovery operation; wait for it to finish, and then try again. This corrective action does not apply for ASA r2. -This node or partner node is in switchover state and the MetroCluster configuration option "node-object-limit" is off in the disaster recovery(DR) group of this node: Retry takeover after doing a switchback. This corrective action does not apply for ASA r2.

Syslog Message

Failover monitor: takeover of %s by %s disabled (%s).

Parameters

local (STRING): Name of the local node.
partner (STRING): Name of the partner node.
reason (STRING): Reason takeover is disabled.

cf.fsm.takeoverByPartnerEnabled

Severity

    NOTICE

Description

    This event is issued when the failover monitor determines that takeover by the partner has been enabled.

Corrective Action

    (None).

Syslog Message

    Failover monitor: takeover of %s by %s enabled

Parameters

    local (STRING): Name of local node
    partner (STRING): Name of partner node

cf.fsm.takeoverCountdown

Severity

    INFORMATIONAL

Description

    This event is issued as part of the takeover countdown processing in the FSM.

Corrective Action

    (None).

Syslog Message

    Failover monitor: takeover scheduled in %d seconds

Parameters

    secsTillTakeover (INT): Number of seconds until takeover occurs

cf.fsm.takeoverDelayed

Severity

    NOTICE

Description

    This event is issued when we are delaying takeover due to status indications received from the partner.

Corrective Action

    (None).

Syslog Message

    Failover monitor: takeover delayed, partner %s

Parameters

    reason (STRING): Description of why takeover is being delayed
    secsTillTakeover (INT): Number of seconds until takeover will be started

cf.fsm.takeoverHung

Severity
EMERGENCY

Description
This message occurs when the failover monitor detects that the takeover process is hung. Subsequent to this event, the takeover node will panic.

Corrective Action
Attempt to find the panic string in the event logs by using the "event log show" command from the CLI, and then look up the string by using the Panic Message Analyzer tool on the NetApp support site: http://mysupport.netapp.com/NOW/cgi-bin/pmsg/. Contact NetApp technical support to confirm the analysis.

Syslog Message
Failover monitor: takeover process is hung ('%s').

Parameters
moduleName (STRING): Name of the module that the hang occurred in.

cf.fsm.takeoverOfPartnerDisabled

Severity
ERROR

Description
This message occurs when the failover monitor determines that takeover of the partner is disabled.

Corrective Action
Find the reason for the error message (it is surrounded by parentheses). Based on that reason, the corrective action is one of the following: -allowed: Takeover is allowed; you do not need to take any action. -Controller failover (CFO) is not initialized: Make sure that the high-availability (HA) pair is set up correctly. Contact NetApp technical support for assistance. -Controller is in non-HA mode: Set HA mode to "ha" by using the "storage failover modify -mode ha" command to activate HA functionality. This corrective action does not apply for ASA r2. -HA takeover disabled: Use the "storage failover modify -enabled true" command to reenable HA functionality. -partner mailbox disks not accessible or invalid: Check connectivity to all disks by running the "storage show" nodeshell command on each node and comparing the results. Resolve the differences in disks visible to both systems. Verify that the interconnect cables are properly cabled. -failover monitor version mismatch: Make sure that both the local and partner node are running the same version of Data ONTAP®. -Takeover disabled by partner: Use the "storage failover modify -enabled true" command to reenable HA functionality. -Takeover disabled by operator: Use the "storage failover modify -enabled true" command to reenable HA functionality. -NVRAM size mismatch: Make sure that the local NVRAM (nonvolatile random-access memory) size matches the partner node. -version mismatch: Make sure that both the local and partner nodes are running the same version of Data ONTAP. -interconnect error: Make sure that the interconnect link is connected and functioning. -partner booting: Wait for the partner node to complete its booting process, and then try takeover. -shelf too hot: Make sure that the disk shelf temperature is properly regulated. -partner is performing revert: Wait for the partner node to complete the revert process, and then try takeover. -revert is in progress: Wait for the local node to complete the revert process, and then try takeover. -partner is attempting takeover: Cannot perform a takeover operation while the partner node is attempting a takeover. -takeover is in progress: The local node is already taken over or is trying to take over the partner node. -partner halted in notakeover mode: The partner node was most likely halted using the "halt -f" or "system node halt -inhibit-takeover" command; reboot the partner node, and then try again. -unsynchronized log: Make sure that the interconnect link is connected and functioning.

-unknown notakeover reasons: Contact NetApp technical support. -waiting for partner to recover: The partner has not booted completely after giveback; wait for the partner to come back up completely. -low memory: Contact NetApp technical support to upgrade. -local halt in progress: The local node is about to halt; try again after the reboot. -status of backup mailbox is uncertain: Check connectivity to all disks by running the "run local storage show" command on each node, and then comparing the results. Resolve the differences in disks visible to both systems. Verify that the interconnect cables are properly cabled. -automatic takeover disabled: Use the "storage failover takeover" command manually. -metrocluster disaster recovery operation is in progress: The local node is performing a MetroCluster(tm) disaster recovery operation; wait for it to finish, and then try again. This corrective action does not apply for ASA r2. -This node or the partner node is in switchover state and the MetroCluster configuration option "node-object-limit" is off in the disaster recovery(DR) group of this node: Retry takeover after doing a switchback. This corrective action does not apply for ASA r2.

Syslog Message

Failover monitor: takeover of %s disabled (%s).

Parameters

partner (STRING): Name of the partner node.
reason (STRING): Description of why takeover cannot occur.

cf.fsm.takeoverOfPartnerEnabled

Severity

NOTICE

Description

This event is issued when the failover monitor determines that takeover of the partner has been enabled.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover of %s enabled

Parameters

partner (STRING): Name of partner node

cf.giveback events

cf.giveback.delayed.cleanup

Severity

INFORMATIONAL

Description

This message occurs when giveback of a partner node is delayed due to the cleanup of a previous giveback event.

Corrective Action

(None).

Failover monitor: giveback process was delayed because of a previous giveback event.

Parameters

(None).

cf.giveback.disk.check.fail

Severity

ALERT

Description

This message occurs when the giveback failed due to a disk inventory check failure.

Corrective Action

If the giveback failed or is disabled because the node did not receive the disk inventory information from the partner, then retry giveback after a few minutes. If the giveback failed or is disabled because the partner is missing its disks, make sure that the partner has connectivity to all of its disks. To check the list of disks that the partner can see, boot the partner in Maintenance mode and use the "disk show" command or "storage show disk" command to list its disks. To check for missing disks, use the "storage failover show -instance" command. If you want to override the disk inventory check, use the "cf disable diskInventory" command from the advanced privilege level of the nodeshell on the takeover node. However, disabling the disk inventory check can lead to client outage if the partner cannot see all of its disks.

Syslog Message

cf giveback failed: %s.

Parameters

reason (STRING): Reason for the disk inventory failure.

cf.giveback.keepingPartnerAggr

Severity

ERROR

Description

This message occurs during the giveback process following a failed takeover attempt, when an aggregate belonging to the partner node is not given back to the partner node. The reason is that the aggregate was already under the control of the node performing the takeover before the takeover attempt. Only aggregates that are acquired during the failed takeover attempt are given back.

Corrective Action

Give back the aggregate to the partner node by using the "storage failover giveback" command.

Syslog Message

Not giving back aggregate '%s' because it was under the control of this node prior to the failed takeover attempt.

Parameters

aggr (STRING): Name of the aggregate that was not given back.

cf.headswap events

cf.headswap.abort

Severity

INFORMATIONAL

Description

This message occurs when the headswap on the partner node is aborted.

Corrective Action

(None).

Syslog Message

(None).

Parameters

partner_sysid (LONGINT): Value of the partner system ID after aborting the headswap.

cf.headswap.clear.partner

Severity

INFORMATIONAL

Description

This message occurs when the disks are manually reassigned to a new partner. The head swap information has been cleared.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.headswap.complete

Severity

INFORMATIONAL

Description

This message occurs when the headswap of a node is completed.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_sysid (LONGINT): Value of the partner system ID before completion of the headswap.
new_sysid (LONGINT): Value of the partner system ID after completion of the headswap.

cf.headswap.detected.local

Severity

INFORMATIONAL

Description

This message occurs when a headswap on the local node is detected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_local_sysid (LONGINT): System ID of the node that is being replaced.
new_local_sysid (LONGINT): System ID of the new node that is replacing the old node.

cf.headswap.detected.partner

Severity

INFORMATIONAL

Description

This message occurs when a headswap on the partner node is detected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_partner_sysid (LONGINT): System ID of the partner that is being replaced.
new_partner_sysid (LONGINT): System ID of the new partner that is replacing the old partner.

cf.headswap.state.change

Severity

INFORMATIONAL

Description

This message occurs when the headswap state changes. The headswap state is written to the primary mailbox. The possible values are HEADSWAP_NONE, HEADSWAP_START, HEADSWAP_CFO_START, HEADSWAP_CFO_END, and HEADSWAP_SFO_START.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_state_string (STRING): Old value of the headswap state.
new_state_string (STRING): New value of the headswap state.

cf.hwassist events

cf.hwassist.Default.NodemgmtAddr

Severity

INFORMATIONAL

Description

This message occurs when the hardware-assist module automatically picked a local IP address for the hardware-assisted takeover feature.

Corrective Action

(None).

Syslog Message

The system automatically chose %s as the local hardware-assist IP address.

Parameters

defaultip (STRING): Default hardware-wassist IP address chosen to receive hardware assist alerts.

cf.hwassist.DefaultEnabled

Severity

INFORMATIONAL

Description

This message occurs when the system automatically enables the hardware-assist takeover feature. With hardware-assisted takeover, certain failures, such as watchdog reset, POST error, and so on, trigger hardware-assisted takeover through hardware components such as Remote LAN Module (RLM) or Service Processor (SP).

Corrective Action

(None).

Syslog Message

Hardware-assisted takeover feature is enabled on this system. The partner can take over this node faster during certain failures.

Parameters

(None).

cf.hwassist.DefaultPrtnrAddr

Severity

NOTICE

Description

This message occurs when the hardware-assist partner address is not configured and the system automatically picked a partner IP address for the hardware-assisted takeover feature. If a partner node has multiple node management IP addresses, a different partner node management IP address can optionally be set by using the "storage failover modify -hwassist-partner-ip" command. Note: the automatically configured IP address cannot be modified on some platforms.

Corrective Action

(None).

Syslog Message

The system automatically chose %s as the hardware-assisted takeover partner address.

Parameters

defaultip (STRING): Default hardware-assist partner IP address chosen to send hardware-assisted takeover alerts.

cf.hwassist.DefaultPrtnrPort

Severity

NOTICE

Description

This message occurs when the partner's port for the hardware-assisted takeover feature is not configured and the system sets the hardware-assist partner port to a default port number. A different partner port number can optionally be set by using the "storage failover modify -hwassist-partner-port" command. Note: the default port number cannot be modified on some platforms.

Corrective Action

(None).

Syslog Message

The system set the default hardware-assist partner port number to %d.

Parameters

defaultport (INT): Default hardware-assist partner port number.

cf.hwassist.empty.MgmtAddr

Severity

ERROR

Description

This message occurs when the local hardware-assist module cannot find at least one node management IP address that has the same capabilities as the partner's hardware components, such as Remote LAN Module (RLM) or Service Processor (SP).

Corrective Action

Complete or correct the setup of the Remote LAN Module (RLM) or Service Process (SP) for each node in your cluster.

Syslog Message

Cannot find hardware-assist node management IP address for partner node.

Parameters

(None).

cf.hwassist.empty.NodemgmtAddr

Deprecated

Deprecated as of version 9.1.

Severity

ERROR

Description

This message occurs when the local hardware-assist module cannot find at least one node management IP address that has the same capabilities as the partner's hardware components, such as Remote LAN Module (RLM) or Service Processor (SP).

Corrective Action

Complete or correct the setup of the Remote LAN Module (RLM) or Service Process (SP) for each node in your cluster.

Syslog Message

Cannot find hardware-assist node management IP address for partner node.

Parameters

(None).

cf.hwassist.FwUpgrade

Severity

ERROR

Description

This message occurs when hwassist thread detects that partner's hw_assist hardware firmware does not support hw_assist feature.

Corrective Action

Upgrade the partner hw_assist hardware firmware to the latest version.

Syslog Message

HA hw_assist: Partner(%s) %s firmware does not support the hw_assist feature.

Parameters

partnerName (STRING): Partner's name.
hwassist_hrdwr (STRING): Type of hw_assist hardware, for example, Remote LAN module(RLM) or

Service Processor(SP).

cf.hwassist.hwasstActive

Severity

INFORMATIONAL

Description

This message occurs when hw_assist successfully binds to a port to listen for alerts.

Corrective Action

None.

Syslog Message

hw_assist: hw_assist functionality is active on IP address: %s port: %d

Parameters

ipaddress (STRING): IP address to which bind was attempted.
port (INT): Port on which bind was attempted.

cf.hwassist.invalidConfig

Severity

NOTICE

Description

This message occurs when the system encounters invalid hardware-assist configurations.

Corrective Action

(None).

Syslog Message

Invalid hardware-assist configurations. IPv4: %s IPv6: %s port: %d keep_alive_interval: %d

Parameters

ipv4 (STRING): Partner node IPv4 address.
ipv6 (STRING): Partner node IPv6 address.
port (INT): Partner node hardware-assist port number.
keep_alive_interval (INT): Hardware-assist keep-alive interval.

cf.hwassist.IpNotConfigured

Severity

ERROR

Description

This message occurs when the hwassist thread detects that the partner's hw_assist hardware is not configured with an IPv4 or IPv6 address.

Corrective Action

Configure a valid IPv4 or IPv6 address for the partner's hw_assist hardware by using the "storage failover

modify -hwassist-partner-ip" command.

Syslog Message

cf hw_assist: Partner(%s)'s %s is not configured with the right IP address family. Use the "storage failover hwassist show" command for details.

Parameters

partnerName (STRING): Partner's name.
hwassist_hrdwr (STRING): Type of hw_assist hardware, for example, RLM.

cf.hwassist.keyMismatch

Severity

NOTICE

Description

This message occurs when hwassist receives a alert with wrong key. EMS displays both the expected and the received keys.

Corrective Action

(None).

Syslog Message

(None).

Parameters

expectedKey (STRING): Expected key, generated by Failover Monitor(FM).
receivedKey (STRING): Received key from hwassist hardware.
systemid (STRING): Received systemid.

cf.hwassist.localMonitor

Severity

ERROR

Description

This message occurs when hwassist thread is inactive because of problems on local node.

Corrective Action

check console log for cf.hwassist_socBindFailed message. If message exist, take corrective action for that message.

Syslog Message

hw_assist: hw_assist functionality is inactive.

Parameters

(None).

cf.hwassist.missedKeepAlive

Severity

ERROR

Description

This message occurs when the HW-assisted takeover process on this node has not received keep-alive messages from its HA partner.

Corrective Action

Use the "storage failover hwassist show" command to verify the status of the HW-assisted takeover feature. If the 'Keep Alive Status' field reports "healthy", it is functional. If the "storage failover hwassist show" command "Keep Alive Status" field reports "did not receive hwassist keep alive alerts from partner" and the "storage failover hwassist stats show" command shows the value of the "ID_mismatch" is incrementing, disable the service-processor (SP or BMC) IPv4 or IPv6 network interfaces and then reenable them, as stated below. Use the "system service-processor network show" command to display the current network configuration. Note whether the IPv4 or IPv6 address-family is enabled. You need this information in the next steps. Perform the following on each node that has an issue: Disable the interface for an address-family by using the "sp network modify -node {name} -address-family {IPv4|IPv6} -enable false" command. Then, reenable the interface for an address-family by setting "-enable true" via the above command.

Syslog Message

HW-assisted takeover missing keep-alive messages from HA partner (%s).

Parameters

partnerName (STRING): HA partner name.

cf.hwassist.noConfigRecv

Severity

ERROR

Description

This message occurs when hwassist thread has not received any config info from partner.

Corrective Action

None.

Syslog Message

hw_assist: hw_assist functionality inactive. No config received from partner(%s).

Parameters

partnerName (STRING): Partner's name.

cf.hwassist.notCapable

Severity

ERROR

Description

This message occurs when the currently installed firmware version of the hardware module doesn't support the hardware-assisted takeover feature.

Corrective Action

Upgrade the hardware module firmware to the latest version.

Syslog Message

Currently installed version of %s's firmware doesn't support the hardware-assist takeover feature. Install a latest firmware for the hardware-assist takeover feature to work.

Parameters

hwtype (STRING): Hardware module type.

cf.hwassist.notifyCfgFailed

Severity

ALERT

Description

This message occurs when a controller module fails to update the hardware-assist configuration with its partner node. This is most likely because the SP component is not ready. The controller module will retry the hardware-assist configuration update automatically.

Corrective Action

Use the ""system node service-processor show"" command to check whether the SP is online. The SP must be online to update the hardware-assist configuration. If the SP is operational and online, use the ""system node service-processor reboot-sp"" command to reboot the SP.If the message persists, contact NetApp technical support.

Syslog Message

Failed to update the hardware-assist configuration with hardware component (%s): %s(%d).

Parameters

hwtype (STRING): Hardware component type.
errorstr (STRING): Error string returned by the hardware component.
error (INT): Error number returned by the hardware component.

cf.hwassist.notifyEnableOff

Severity

INFORMATIONAL

Description

This message occurs when the hwassist thread detects that 'notify enable' is turned off on the partner node.

Corrective Action

None.

Syslog Message

HA hw_assist: hw_assist functionality on the partner node has been disabled by the user.

Parameters

(None).

cf.hwassist.notifyEnableOn

Severity

INFORMATIONAL

Description

This message occurs when the user enables hw_assist functionality on the partner node. hw_assist will try to bind to the specified IP address and port.

Corrective Action

None.

Syslog Message

HA hw_assist: hw_assist functionality on the partner node has been enabled by the user.

Parameters

(None).

cf.hwassist.ptnStartThrottle

Severity

INFORMATIONAL

Description

This message occurs when partner has started throttling hw_assist alerts. UDP socket will be closed and no alerts will be received.

Corrective Action

(None).

Syslog Message

Failover Monitor hw_assist: Partner(%s) node has started throttling hw_assist alerts.

Parameters

partnerName (STRING): Partner's name

cf.hwassist.ptnStopThrottle

Severity

INFORMATIONAL

Description

This message occurs when partner has stopped throttling hw_assist alerts. hw_assist will bind to UDP socket and wait for alerts.

Corrective Action

(None).

Syslog Message

hw_assist: Partner(%s) has stopped throttling hw_assist alerts.

Parameters

partnerName (STRING): Partner's name

cf.hwassist.recvKeepAlive

Severity

INFORMATIONAL

Description

This message occurs when hwassist thread receives hw_assist KeepAlive alert after missing at least two consecutive KeepAlive alerts.

Corrective Action

(None).

Syslog Message

hw_assist: Received hw_assist KeepAlive alert from partner(%s).

Parameters

partnerName (STRING): Partner's name

cf.hwassist.socBindFailed

Severity

ERROR

Description

This message occurs when hwassist thread fails to bind to a socket on a particular ipaddress. The error indicates why bind failed.

Corrective Action

Check if specified port and IP address is valid. You may want to try with a different recommended port number.

Syslog Message

hw_assist: bind failed to port %d on IP address %s. Error %d

Parameters

port (INT): Port on which bind was attempted.
ipaddress (STRING): IP address to which bind was attempted.
error (INT): error returned by bind call

cf.hwassist.socInitFailed

Severity

NOTICE

Description

This message occurs when hwassist thread fails to create socket.

Corrective Action

None.

Syslog Message

hw_assist: Fail to create socket.

Parameters

(None).

cf.hwassist.startThrottle

Severity

NOTICE

Description

This message occurs when the hardware assist subsystem thread detects that it is receiving hardware assist alerts at a rate higher than the maximum configurable rate and has temporarily stopped listening for hardware assist alerts. This can be an indication that another client is configured to send SNMP traps to the hardware assist trap IP address and port. If the partner node fails while listening for hardware assist alerts is disabled, detection of the partner failure can take slightly longer as loss of heartbeat from the partner or other non-hardware-assisted mechanism is instead needed to detect the failure. Subsequent receipt of the cf.hwassist.stopThrottle message indicates the hardware assist thread is again listening for hardware assist alerts.

Corrective Action

Check whether some other client is configured to send SNMP alerts to the IP address and port on which hardware assist is configured. You can obtain the IP address using the ""storage failover hwassist show"" command. If this is the case, direct those SNMP alerts to the correct IP address and port. If not, contact NetApp technical support to further diagnose the issue.

Syslog Message

hw_assist: Received %llu hw_assist alerts in %llu secs. Throttling alerts for %llu secs.

Parameters

num_of_traps (LONGINT): Number of traps received.
time_interval (LONGINT): Time window in which the traps were received.
throttle_time (LONGINT): Time for which throttle will happen.

cf.hwassist.stopThrottle

Severity

NOTICE

Description

This message occurs when a node has stopped throttling hardware assist alerts from the partner. This indicates the hardware assist thread has restarted listening for hardware assist alerts subsequent to the receipt of the cf.hwassist.startThrottle event.

Corrective Action

(None).

Syslog Message

Failover monitor hw_assist: Shutting off throttle for hw_assist alerts from partner(%s).

Parameters

partnerName (STRING): Partner's name.

cf.hwassist.takeoverTrapRecv

Severity

NOTICE

Description

This message occurs when hwassist thread receives a hw_assist alert which will result in partner takeover. EMS displays trap type as well as reason for the trap.

Corrective Action

(None).

Syslog Message

hw_assist: Received takeover hw_assist alert from partner(%s), %s because %s.

Parameters

partnerName (STRING): Partner's name
trap_type (STRING): Type of trap received
trap_event (STRING): Type of trap event

cf.hwassist.unknownSig

Severity

INFORMATIONAL

Description

This message occurs when hwassist thread receives an unknown signal.

Corrective Action

None.

Syslog Message

hw_assist: Received unknown signal 0x%x.

Parameters

sigmask (INT): Signal received by hwassist thread.

cf.ic events

cf.ic.cc.config.changed

Severity

NOTICE

Description

This message occurs when the controller configuration is changed from a single enclosure HA configuration to a dual enclosure HA configuration.

Corrective Action

If the controller is part of a dual enclosure HA configuration, make sure that the psm-cc-config? environment variable is unset and reboot.

Syslog Message

HA interconnect: Controller configuration was changed from single enclosure HA configuration to dual enclosure HA configuration.

Parameters

(None).

cf.ic.clientinitFailed

Severity

ERROR

Description

This message occurs when the interconnect client fails to initialize due to remote VI setup failure.

Corrective Action

Reboot the controller. Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: Initialization failure for %s client.

Parameters

client (STRING): Name of the client that failed to initialize.

cf.ic.disabled

Severity

ERROR

Description

This message occurs when the HA interconnect is disabled by the ic-type environment variable.

Corrective Action

Either remove the HA interconnect from the controller or change the ic-type environment variable.

Syslog Message

HA interconnect: Card in slot %d has been disabled because of the ic-type environment variable.

Parameters

slot (INT): Slot that the interconnect is in.

cf.ic.driver.flush.idWarn

Severity

NOTICE

Description

This message occurs when the HA interconnect cannot process a flush request for a particular driver I/O request.

Corrective Action

(None).

Syslog Message

HA interconnect: Flush %s failed for channel %d and ID %d.

Parameters

s (STRING): Name of the error.
nvidx (INT): Interconnect channel.
wrid (INT): Work request ID.

cf.ic.failed.memReg

Severity

INFORMATIONAL

Description

This message occurs when memory registration fails.

Corrective Action

(None).

Syslog Message

HA interconnect: Memory registration operation failed at %d.

Parameters

source (INT): Source for the memory operation.

cf.ic.flush.ACKWarn

Severity

NOTICE

Description

This message occurs when the HA interconnect cannot send acknowledgments through its completion channel.

Corrective Action

(None).

Syslog Message

HA interconnect: Flush completion %s error.

Parameters

s (STRING): Name of the error.

cf.ic.flush.MemError

Severity

ERROR

Description

This message occurs during boot time initialization, when the HA interconnect encounters an error with memory registration or allocation.

Corrective Action

Reboot the controller to restart the HA interconnect. Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: Flush memory %s error.

Parameters

s (STRING): Name of the error.

cf.ic.flush.oodlinitFailed

Severity

ERROR

Description

This message occurs when there is a failure in the initialization of a NIC to enable out-of-order delivery on the HA interconnect.

Corrective Action

Reboot the controller to enable HA interconnect flushing. Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: Flush out-of-order delivery initialization failed.

Parameters

(None).

cf.ic.heartBeatFailed

Severity

ERROR

Description

This message occurs when heartbeats cannot be sent or received over the HA interconnect.

Corrective Action

Verify that both controllers in the HA pair are operational. If this message persists, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands.

Syslog Message

HA interconnect: Heartbeat failed.

Parameters

(None).

cf.ic.initFailed

Severity

ERROR

Description

This message occurs when the driver fails to find an HA interconnect adapter or the interconnect is nonfunctional.

Corrective Action

Verify that the High Availability interconnect card is present and operational on the system. Reboot the controller. Contact NetApp technical support if this problem persists.

Syslog Message

HA interconnect: Unable to initialize process.

Parameters

(None).

cf.ic.non.cc.config.changed

Severity

NOTICE

Description

This message occurs when the controller configuration is changed from a dual enclosure HA configuration to a single enclosure HA configuration.

Corrective Action

If the controller is part of single enclosure HA configuration, make sure that that the other controller is physically present in the chassis and that the psm-cc-config? environment variable is set to true, and then reboot.

Syslog Message

HA interconnect: Controller configuration was changed from dual enclosure HA configuration to single enclosure HA configuration.

Parameters

(None).

cf.ic.notifyTimeout

Severity

NOTICE

Description

This message occurs when data transfer over the HA interconnect times out.

Corrective Action

(None).

Syslog Message

HA interconnect: %s transfer timed out.

Parameters

qp_name (STRING): Queue-pair name.

cf.ic.portsCrossConnected

Severity

ALERT

Description

This message occurs when the HA interconnect driver determines that the ports between this controller and its partner are cross-connected.

Corrective Action

Connect port 1 on this controller to port 1 on the partner, and connect port 2 on this controller to port 2 on the partner. If the interconnect cables have serial number tags on both ends, use the serial numbers to verify that the ports are properly connected. If the interconnect cables do not have serial number tags, disconnect one of the HA interconnect ports from one of the controllers. The LEDs of this port and one of the ports on the partner turn off. If the two ports have different port numbers, the cables are cross-connected. Reversing the connection on one of the controllers rectifies the problem.

Syslog Message

HA interconnect: Port %d of this controller seems to be connected to port %d on the partner.

Parameters

localPort (INT): Local port number.
remotePort (INT): Remote port number.

cf.ic.probe.error

Severity

ALERT

Description

This event is generated when we fail to detect an High Availability (HA) interconnect communication device during system initialization. If this error occurs, internode communication within the HA pair is down.

Corrective Action

Examine the logs for messages regarding the HA interconnect. Resolve the HA interconnect problems.

Syslog Message

Failover monitor: no interconnect found WARNING: Failover monitor operating in degraded mode

Parameters

errorCode (INT): The internal error code

cf.ic.sbb

Severity

NOTICE

Description

This message occurs when a system SBB (Storage Bridge Bay) Compatibility event occurs. SBB Compatibility events determine the presence or absence of the HA partner controller on some platforms.

Corrective Action

(None).

Syslog Message

HA interconnect: SBB Compatibility Event. %s

Parameters

event_description (STRING): Presence or absence of the partner controller and what action has been taken on the interconnect device.

cf.ic.xferTimedOut

Severity

ERROR

Description

This message occurs when data transfer over the HA interconnect times out. This is usually seen when the interconnect link goes down. It can also be encountered when the interconnect hardware, firmware, or driver experiences a hang.

Corrective Action

Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: %s transfer timed out.

Parameters

qp_name (STRING): Name of the connection queue-pair that timed out.

cf.ic.xferTimedOutVSA

Severity

NOTICE

Description

This message occurs when data transfer over the high-availability (HA) interconnect times out on virtual platforms. This is usually seen when the underlying network is busy or the system is operating under heavy load.

Corrective Action

Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: %s transfer timed out.

Parameters

qp_name (STRING): Name of the connection queue-pair that timed out.

cf.mccip events

cf.mccip.med.auso.stDisabled

Severity

ERROR

Description

This message occurs when automatic switchover in a MetroCluster(tm) IP configuration is disabled because the mediator mailbox disk is not healthy.

Corrective Action

Use the "storage failover show -fields local-mailbox-disks" command to verify that all nodes in the cluster can access their respective mailbox disks. Use the (privilege: advanced) "storage iscsi-initiator show" command to verify that iSCSI connections to the mediator are up and healthy.

Syslog Message

Automatic switchover disabled: Mediator mailbox disk not healthy.

Parameters

(None).

cf.mccip.med.auso.stEnabled

Severity

NOTICE

Description

This message occurs when automatic switchover in a MetroCluster(tm) IP configuration is enabled because the mediator mailbox disk is online.

Corrective Action

(None).

Syslog Message

Automatic switchover enabled.

Parameters

(None).

cf.misc events

cf.misc.givebackPartnerNotReady

Severity

NOTICE

Description

The message occurs when a giveback is initiated before the partner has reached waiting-for-giveback state.

Corrective Action

(None).

Syslog Message

Giveback is being initiated before the partner is in the waiting-for-giveback state. The partner is in the %s state.

Parameters

state (STRING): Current state of the partner.

cf.misc.operatorDisable

Severity

ERROR

Description

This message occurs when the operator disables the high-availability (HA) pair.

Corrective Action

Use the "storage failover modify -enabled true" command to reenable failover.

Syslog Message

Failover monitor: operator initiated disabling of takeover.

Parameters

(None).

cf.misc.operatorDisableOption

Severity

ERROR

Description

This event is issued when the operator disables a High Availability (HA) option.

Corrective Action

Re-enable the option

Syslog Message

(None).

Parameters

option (STRING): Name of the option

cf.misc.operatorEnable

Severity

NOTICE

Description

This event is issued when the operator enables failover between the 2 nodes.

Corrective Action

(None).

Syslog Message

Failover monitor: operator initiated enabling of failover.

Parameters

(None).

cf.misc.operatorEnableOption

Severity

NOTICE

Description

This event is issued when the operator enables a controller failover option.

Corrective Action

(None).

Syslog Message

(None).

Parameters

option (STRING): Name of the option

cf.misc.operatorForcedTakeover

Severity

NOTICE

Description

This event is issued when a forced takeover is initiated by the operator.

Corrective Action

(None).

Syslog Message

Failover monitor: forced takeover initiated by operator

Parameters

(None).

cf.misc.operatorGiveback

Severity

INFORMATIONAL

Description

This event is issued when a giveback is initiated by the operator.

Corrective Action

(None).

Syslog Message

Failover monitor: %s initiated by operator

Parameters

strengthString (STRING): External string
strengthCode (INT): Internal code for strength

cf.misc.operatorTakeover

Severity

NOTICE

Description

This event is issued when a takeover is initiated by the operator.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover initiated by operator

Parameters

(None).

cf.misc.ProgTakeover

Severity

NOTICE

Description

This message is issued when a takeover is initiated programmatically by Data ONTAP®.

Corrective Action

(None).

Syslog Message

Failover monitor: takeover initiated.

Parameters

(None).

cf.misc.ProgTakeoverFail

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and the takeover request fails.

Corrective Action

Check the reason string and repair the problem reported.

Syslog Message

Failover monitor: Programmatic takeover failed (%s)

Parameters

errorstr (STRING): Error string returned by the failover monitor.

cf.misc.ProgTakeoverFailInit

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and the takeover request fails because the controller is set to "non_ha" mode or is not initialized.

Corrective Action

Set the HA mode to "ha" by using the "storage failover modify -mode ha" command, and then reboot the node.

Syslog Message

Failover monitor: Programmatic takeover failed due to initialization issues.

Parameters

(None).

cf.misc.ProgTakeoverFailInTO

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and the node is already in takeover mode.

Corrective Action

(None).

Syslog Message

Failover monitor: Programmatic takeover failed due to previous takeover.

Parameters

(None).

cf.misc.ProgTakeoverFailNotUp

Severity

NOTICE

Description

This message occurs when a negotiated takeover is initiated programmatically by Data ONTAP® and the partner node is not up.

Corrective Action

Bring up the partner node.

Syslog Message

Failover monitor: Programmatic takeover failed because the partner node is not up.

Parameters

(None).

cf.misc.ProgTakeoverFailPartnerDeny

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and the partner node denies the takeover request.

Corrective Action

Check previous EMS messages to determine why takeover was denied.

Syslog Message

Failover monitor: Programmatic takeover failed because the partner node denied the takeover request.

Parameters

(None).

cf.misc.ProgTakeoverFailShutdown

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and a shutdown is in progress.

Corrective Action

Verify that both nodes are booted.

Syslog Message

Failover monitor: Programmatic takeover failed because shutdown was in progress.

Parameters

(None).

cf.mode events

cf.mode.auto.HA

Severity

NOTICE

Description

This message occurs when the controller is automatically set to High Availability(HA) mode because of the configuration values in the Field Replaceable Unit(FRU) or the slot of the interconnect/NVRAM card (depending on the hardware type of the controller).

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.mode.auto.non.HA

Severity

NOTICE

Description

This message occurs when the controller is automatically set to non-High Availability (non-HA) mode because of the configuration values in the Field Replaceable Unit (FRU) or the slot of the interconnect/NVRAM card (depending on the hardware type of the controller).

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.mode.HA

Severity

INFORMATIONAL

Description

This message occurs when the user sets the controller to High Availability(HA) mode through the command-line interface.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.mode.HA.onboot

Severity

INFORMATIONAL

Description

This message occurs when the controller is set to High Availability (HA) mode according to options detected at boot.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.mode.non.HA

Severity

INFORMATIONAL

Description

This message occurs when the user sets the controller to non-High Availability (non-HA) mode through the command-line interface.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.mode.non.HA.onboot

Severity

INFORMATIONAL

Description

This message occurs when the controller is set to non-High Availability (non-HA) mode according to options detected at boot.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.multidisk events

cf.multidisk.fatalProblem

Severity

ERROR

Description

This message occurs when the node is waiting for the partner to take over, after the node encounters a multidisk error or some other fatal error.

Corrective Action

(None).

Syslog Message

Node encountered a multidisk error or other fatal error while waiting to be taken over. %s.

Parameters

mdp_msg (STRING): Multi Disk Panic (MDP) string.

cf.nducomplete events

cf.nduComplete

Severity

INFORMATIONAL

Description

This message occurs when a nondisruptive upgrade is completed successfully.

Corrective Action

(None).

Syslog Message

(None).

Parameters

token (STRING): Unique token that identifies an instance of a nondisruptive upgrade.
host (STRING): Name of system that completed the nondisruptive upgrade.

cf.nduincomplete events

cf.nduIncomplete

Severity

INFORMATIONAL

Description

This message occurs when a nondisruptive upgrade fails.

Corrective Action

Resolve the reason for the failure and retry the nondisruptive upgrade from the failed step.

Syslog Message

(None).

Parameters

token (STRING): Unique token that identifies an instance of a nondisruptive upgrade.
host (STRING): Name of the node that failed the nondisruptive upgrade.
reason (STRING): Reason for the upgrade failure.

cf.ndustart events

cf.nduStart

Severity

INFORMATIONAL

Description

This message occurs when a nondisruptive upgrade starts.

Corrective Action

(None).

Syslog Message

(None).

Parameters

token (STRING): Unique token that identifies an instance of a nondisruptive upgrade.
host (STRING): Name of system that started the nondisruptive upgrade.

cf.nm events

cf.nm.nicReset

Severity

NOTICE

Description

This message occurs when the controller performs a soft reset of the HA interconnect card as part of automatic recovery from a timeout or link error.

Corrective Action

(None).

Syslog Message

HA interconnect: Initiating soft reset on card %d due to %s.

Parameters

nic_num (INT): Interconnect NIC number.
reason (STRING): Describes why the soft reset was initiated. Possible reasons: rendezvous jammed rendezvous fm timeout rendezvous peer-connect timeout

cf.nm.nicViError

Severity

INFORMATIONAL

Description

This message occurs when any error is detected in any virtual interface while handling a link transition.

Corrective Action

(None).

Syslog Message

HA interconnect: NIC %d has an error on %s (virtual interface #%d): %s.

Parameters

nic_num (INT): Interconnect NIC number.
vi_name (STRING): Name of the virtual interface.
vinum (INT): Virtual interface number.
origin (STRING): Origin of the error.

cf.noautogb events

cf.noAutoGB.ptnrLowerVersion

Severity

NOTICE

Description

This message occurs when an automatic giveback operation is cancelled because the high-availability (HA) partner is using an earlier and incompatible Data ONTAP® version than the local node. Subsequent failover events might not be successful when HA partners are not using compatible Data ONTAP versions.

Corrective Action

Run the "system node image show" command to determine which image on the partner should be booted to be compatible with the local node. After rebooting the node, automatic giveback is performed.

Syslog Message

Auto-giveback cancelled because the HA partner is using a lower Data ONTAP version than the local node.

Parameters

(None).

cf.nopartner_takeover events

cf.noPartner_takeover

Severity

ERROR

Description

This message occurs when the partner node fails but requested not to be taken over to prevent multiple, simultaneous RAID reconstructs from starting.

Corrective Action

Check the partner node for multiple disk or disk shelf failures, and then correct that situation. If you want takeover to occur, use the "storage failover takeover" command. If you want takeover to occur when disk or shelf failures occur, change the setting of the "raid.panic.missing.disks" option to '0' from the nodeshell.

Syslog Message

Failover monitor: Partner node is down, but requested not to be taken over.

Parameters

(None).

cf.nullshelfcountmsg events

cf.nullShelfCountMsg

Severity

ERROR

Description

This event occurs if we are sent a NULL negotiated failover shelf count message. * This is likely due to an InterConnect problem.

Corrective Action

Check for and resolve any interconnect errors.

Syslog Message

Invalid disk shelf count message was received from partner.

Parameters

(None).

cf.partner events

cf.partner.login

Severity

INFORMATIONAL

Description

This event is issued when a login to the console of the partner occurs as a result of the 'partner' command being issued with no arguments.

Corrective Action

(None).

Syslog Message

Login to partner shell: %s

Parameters

hostname (STRING): The name of this node

cf.partner.logoff

Severity

INFORMATIONAL

Description

This event is issued when a logoff from the console of the partner occurs as a result of the 'partner' command being issued with no arguments.

Corrective Action

(None).

Syslog Message

Logoff from partner shell: %s

Parameters

hostname (STRING): The name of this node

cf.partner.nvram.notSync

Severity

INFORMATIONAL

Description

This message occurs during takeover, when the system finds the partner nonvolatile memory (NVRAM) unsynchronized. There might be data loss.

Corrective Action

(None).

Syslog Message

Partner NVRAM was not synchronized. Some data might be lost.

Parameters

(None).

cf.partner.nvram.state

Severity

INFORMATIONAL

Description

This message occurs during takeover, when the system determines that the partner mailbox is stale. This might mean that partner nonvolatile memory (NVRAM) is unsynchronized and might have some data loss.

Corrective Action

(None).

Syslog Message

Partner mailbox was stale. Partner NVRAM might not be synchronized and some data might be lost.

Parameters

(None).

cf.partner.ready.giveback

Severity

INFORMATIONAL

Description

This message occurs when the partner is booted and ready for giveback.

Corrective Action

Verify that network connectivity is restored, and then use the "storage failover giveback" command to initiate giveback to the partner.

Syslog Message

Partner is booted and ready for giveback.

Parameters

(None).

cf.partner.shortUptime

Severity

ERROR

Description

This message occurs when a node in a controller failover pair determines that the partner node has stayed up for a very short time period. This might result in a takeover

Corrective Action

Check the disk connectivity to the partner node. If the problem persists and the partner node restarts multiple times, perform hardware diagnostics in maintenance mode, and then consult the EMS logs to determine why this is happening.

Syslog Message

Partner up for %llu seconds only.

Parameters

seconds (LONGINT): Time duration for which the partner was up.

cf.reservation events

cf.reservation.disk.notFound

Severity

NOTICE

Description

This message occurs when the system does not halt on a disk reservation conflict and the reservation is not found on the disk.

Corrective Action

(None).

Syslog Message

Reservation found on disk %s; not halting due to sanown_pr_test_mode.

Parameters

   diskName (STRING): Disk name.

cf.rsrc events

cf.rsrc.givebackFail

Severity

   ALERT

Description

   This message occurs when a failure is detected during giveback. The giveback operation will be cancelled.

Corrective Action

   Check the logs for other messages regarding the listed subsystem using the "event log show" CLI command. Resolve those problems and perform a planned giveback operation using "storage failover giveback" command.

Syslog Message

   Failover monitor: giveback during %s failed; giveback cancelled.

Parameters

   op (STRING): Name of the giveback subsystem that has suffered a fatal error.

cf.rsrc.givebackForceFail

Severity

   ERROR

Description

   This event occurs if a failure is forced during giveback. This event should only occur in debugging kernels.

Corrective Action

   Retry the takeover.

Syslog Message

   Failover monitor: giveback during %s forced fail

Parameters

   op (STRING): Name of the takeover operation

cf.rsrc.givebackForceVeto

Severity

   ERROR

Description

   This event occurs if a veto is forced during giveback. This event should only occur in debugging kernels.

Corrective Action

Check the state of the subsystem listed in this message. Retry the giveback.

Syslog Message

Giveback during %s forced veto

Parameters

op (STRING): Name of the takeover operation

cf.rsrc.givebackOpFail

Severity

ERROR

Description

This event occurs if a failure is detected during giveback. This error is not fatal to the giveback process but indicates that the related service could not be shutdown cleanly.

Corrective Action

Check the state of the subsystem listed in the message and validate it is working correctly. Validate that there are no configuration errors for the listed subsystem.

Syslog Message

Failover monitor: giveback during %s failed; giveback continuing…

Parameters

op (STRING): Name of the giveback operation that has suffered a non-fatal error.

cf.rsrc.givebackUnexpected

Severity

ALERT

Description

This event occurs if we detect an unexpected failover monitor state during a giveback operation. This indicates a software bug.

Corrective Action

Retry the giveback.

Syslog Message

(None).

Parameters

op (STRING): Name of the giveback operation
state (INT): Value of the failover monitor state

cf.rsrc.givebackVeto

Severity

ALERT

Description

This message occurs when a veto is indicated during giveback. A veto occurs when the active partner state is detected during the giveback process. A veto can be overridden by using the "cf giveback -f" or "storage failover takeover -override-vetoes true" command.

Corrective Action

Check the preceeding messages for reasons why the giveback was vetoed. Check the state of the subsystem listed in this message. Retry the giveback.

Syslog Message

Failover monitor: %s: giveback canceled due to active state.

Parameters

op (STRING): Name of the takeover operation.

cf.rsrc.raidReplayOnlyTODone

Severity

INFORMATIONAL

Description

This event occurs when a node is booting after having panicked too soon after takeover or during takeover. In that event we want to replay the partner RAID logs, before we perform a giveback. This message indicates the point at which we have committed partner RAID logs to the disk and are now going to initiate a giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: Raid replay-only takeover completed. Initiating giveback.

Parameters

(None).

cf.rsrc.replayOnlyTakeoverDone

Severity

NOTICE

Description

This event occurs when a node is booting after having panicked too soon after takeover or during takeover. In that event we want to replay the partner logs, before we perform a giveback. This message indicates the point at which we have committed partner logs to the disk and are now going to initiate a giveback.

Corrective Action

(None).

Syslog Message

Failover monitor: replay-only takeover completed. Initiating giveback.

Parameters

(None).

cf.rsrc.takeoverFail

Severity

ALERT

Description

This message occurs when a failure is detected during takeover. The takeover operation will be cancelled.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failover monitor: takeover during %s failed; takeover cancelled.

Parameters

op (STRING): Name of the takeover operation that has suffered a fatal error.

cf.rsrc.takeoverForceFail

Severity

ERROR

Description

This event occurs if a failure is forced during takeover. This event should only occur in debugging kernels.

Corrective Action

Retry the takeover request.

Syslog Message

Failover monitor: takeover during %s forced fail

Parameters

op (STRING): Name of the takeover operation

cf.rsrc.takeoverOpFail

Severity

ERROR

Description

This event occurs if a failure is detected during takeover. This error is not fatal to the takeover process but indicates that the related service may be inaccessible during takeover of the partner.

Corrective Action

After takeover completes, check the state of the subsystem listed in the message. Check that the configuration of the subsystem listed in the messsage is correct.

Syslog Message

Failover monitor: takeover during %s failed; takeover continuing…

Parameters

op (STRING): Name of the takeover operation that has suffered a non-fatal error.

cf.rsrc.takeoverUnexpected

Severity

ERROR

Description

This event occurs if we detect an unexpected failover monitor state during a takeover operation. This indicates a software bug.

Corrective Action

Check the state of the subsystem listed in 'op' parameter. Retry the giveback.

Syslog Message

(None).

Parameters

op (STRING): Name of the giveback operation
state (INT): Value of the failover monitor state

cf.rv events

cf.rv.connected

Severity

INFORMATIONAL

Description

This message occurs when an HA connection agent connects on an HA interconnect device.

Corrective Action

(None).

Syslog Message

HA interconnect: Connection for '%s' succeeded.

Parameters

rv_name (STRING): Logical name of the successful HA connection.

cf.rv.flush.handleExchange

Severity

INFORMATIONAL

Description

This message occurs when HA interconnect exchanges flushing information with the partner.

Corrective Action

If the flush handle exchange reports "inactive", the remote controller might be running a version of Data ONTAP® that does not support flushing. Make sure that the controller and its partner are running compatible versions of the software.

Syslog Message

HA interconnect: Flushing is %s.

Parameters

s (STRING): Flushing status.

cf.rv.localNoConn

Severity

INFORMATIONAL

Description

This message occurs when the local controller votes not to connect to the HA partner. This can be caused by incompatibility between the software versions running on the two controllers.

Corrective Action

Install compatible versions of software on both controllers.

Syslog Message

HA interconnect: Local controller voted not to connect.

Parameters

(None).

cf.rv.nicReset

Severity

ERROR

Description

This message occurs when HA interconnects are reset due to NVRAM log being unsynchronized for longier time than 15seconds.

Corrective Action

Contact NetApp technical support if the problem persists.

Syslog Message

HA interconnect: Reset due to unsynchronized log.

Parameters

(None).

cf.rv.notConnected

Severity

ALERT

Description

This message occurs when an HA connection agent fails to connect on an HA interconnect device.

Corrective Action

Verify that both controllers in the HA pair are operational. If this message persists, disable and reenable the link by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands.

Syslog Message

HA interconnect: Connection for '%s' failed.

Parameters

rv_name (STRING): Logical name of the failing HA connection.

cf.rv.partnerNoConn

Severity

ERROR

Description

This message occurs when the HA partner votes not to connect to this controller. This can happen if the HA partner detects an incompatibility between the software versions running on the two controllers.

Corrective Action

Install compatible versions of software on both controllers.

Syslog Message

HA interconnect: Partner voted not to connect.

Parameters

(None).

cf.shutdown events

cf.shutdown.info

Severity

NOTICE

Description

This message occurs when the controller receives a message from its partner over the HA interconnect that indicates a condition related to the partner's attempted graceful shutdown.

Corrective Action

(None).

Syslog Message

(None).

Parameters

eventType (STRING): Event type, such as "Long shutdown".
eventSummary (STRING): Last task executed and its duration.
shutdownSummary (STRING): Shutdown phase summary for the event.

cf.sysid events

cf.sysid.sent

Severity

INFORMATIONAL

Description

This message occurs when a node sends its system ID and its HA partner's system ID successfully across the HA interconnect.

Corrective Action

(None).

Syslog Message

(None).

Parameters

sysid (LONGINT): Value of the local system ID that was sent successfully .
host (STRING): This parameter is obsolete from Data ONTAP®8.3 and later because the parter's systemID is also sent in the message.
partner_sysid (LONGINT): Value of the partner system ID that was sent successfully.

cf.takeover events

cf.takeover.aborted.bdfu

Severity

NOTICE

Description

This message occurs when negotiated takeover is aborted because the background disk firmware update took more than 120 seconds to finish.

Corrective Action

Rerun the takeover command.

Syslog Message

(None).

Parameters

(None).

cf.takeover.delayed.bdfu

Severity

INFORMATIONAL

Description

This message occurs when negotiated takeover is initiated on a node while the background disk firmware update (BDFU) is in progress. If update is not completed within 120 seconds, takeover is aborted.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

cf.takeover.delayed.cleanup

Severity

INFORMATIONAL

Description

This message occurs when takeover of a node by the node's high-availability (HA) partner was delayed due to the cleanup being performed after the previous giveback event.

Corrective Action

(None).

Syslog Message

(None).

Parameters

delay (LONGINT): Amount of time (in milliseconds) the takeover was delayed.

cf.takeover.disabled

Severity

ALERT

Description

This message occurs when takeover of a node by the node's high-availability (HA) partner is disabled.

Corrective Action

Resolve the issue, as identified by the message, for takeover being disabled. Use the "storage failover show -instance" command to determine whether the disks are accessible by both nodes in the HA pair, also check the HA interconnect between both nodes is installed and functioning correctly. If not, fix the cabling, disk, or adapter issues to resolve the connectivity issues.

Syslog Message

%s.

Parameters

reason (STRING): Reason for takeover being disabled.

cf.takeover.missing.ptnrDiskInventory

Severity

EMERGENCY

Description

This message occurs when a takeover request is denied because the node did not receive the partner disk inventory information.

Corrective Action

Wait five minutes and then try takeover again. If you want to disable the disk inventory check instead, you can use the "cf disable diskInventory" command from the advanced privilege level of the nodeshell. However, disabling the disk inventory check might lead to a client outage when the local node cannot see the partner disks during takeover.

Syslog Message

(None).

Parameters

(None).

cf.takeover.missingPtnrDisks

Severity

EMERGENCY

Description

This message occurs when a takeover request is denied because the node cannot see some of the partner's drives.

Corrective Action

Make sure that the local node has connectivity to all file system drives owned by the partner. Use the "storage failover show -fields local-missing-disks, partner-missing-disks" command to rescan the drive and to determine latest ownership. Drives might not be visible if partner drives have failed or the node is having issues accessing the partner node's drives. Verify that the HA interconnect cabling is correct, replace any failed drives and then check whether the issue is resolved. If you want to disable the drive inventory check instead, use the "storage failover takeover -allow-disk-inventory-mismatch true" command. However, disabling the drive inventory check during takeover is not advisable, because it might lead to client outage.

Syslog Message

Failover monitor: Takeover failed because the node cannot see some of the partner node's drives.

Parameters

(None).

cf.transition events

cf.transition.info

Severity

NOTICE

Description

This message occurs when a failover event is completed successfully. It displays the protocol transition information for the event.

Corrective Action

(None).

Syslog Message

%s %s.

Parameters

eventType (STRING): Takeover, aggregate relocation, SFO phase of takeover, or SFO giveback event type.
eventSummary (STRING): Transition duration for protocols during the event.

cifs events

cifs.does events

cifs.does.not.exist

Severity

ERROR

Description

This message occurs when a Vserver or Cluster administrator tries to initialize Snapmirror on Async VserverDR ID Discard setup without creating a CIFS server at destination. Snapmirror initialize will not complete successfully and will remain uninitialized.

Corrective Action

Create CIFS server at destination(DP-destination) vserver. Reissue snapmirror initialize.

Syslog Message

CIFS server does not exist on Vserver '%s'.

Parameters

vserverName (STRING): Name of the DP-destination Vserver on which CIFS server does not exist.

cifs.domainpwd events

cifs.domainpwd.job.deletion

Severity

NOTICE

Description

This message occurs when disabling of CIFS domain password change schedule fails to delete the job for a Vserver.

Corrective Action

Delete the job on the owning node using 'job delete -id ' command.

Syslog Message

An attempt to delete the CIFS domain password change job with ID %d for Vserver %s failed. Reason %s.

Parameters

jobid (LONGINT): CIFS password change job ID that failed to delete.
vserver (STRING): Name of the Vserver for which the password change job failed to delete.
reason (STRING): Reason for the failure to delete the job.

cifs.domainpwd.job.not.sched

Severity

ERROR

Description

This message occurs when the scheduled job for a CIFS domain password change fails for a Vserver.

Corrective Action

Disable and enable the feature for the Vserver by using the 'vserver cifs domain password schedule modify -is-schedule-enabled false' and 'vserver cifs domain password schedule modify -is-schedule-enabled true' commands. If the error persists, do the following: 1. Disable the scheduling feature for the password change on the Vserver by using the command specified above. 2. Change password manually by using the 'vserver cifs domain password change' command. 3. Contact NetApp technical support.

Syslog Message

An attempt to schedule a job to update the domain account password for Vserver %s failed.

Parameters

vserver (STRING): Name of the Vserver for which the password change job failed.

cifs.domainpwd.not.updated

Severity

ERROR

Description

This message occurs when the CIFS domain password update for a Vserver fails.

Corrective Action

Try updating the password manually by using the 'vserver cifs domain password change' command. Review recent event logs for addtional information. If the error persists, contact NetApp technical support.

Syslog Message

An attempt to update the domain account password for Vserver %s failed during %s with the following error: %s

Parameters

vserver (STRING): Name of the Vserver for which the password update failed.
method (STRING): Method used to update the password.
reason (STRING): Reason for the failure.

cifs.lug events

cifs.lug.import.fail

Severity

ERROR

Description

This message occurs when the job to import CIFS local users and groups is completed successfully only at a primary site within a MetroCluster® configuration or Vserver DR setup. CIFS local users and groups have either not been applied or only partially applied at the secondary site.

Corrective Action

Use the "metrocluster vserver resync -vserver <vserver name>" command to resynchronize the Vserver configuration.

Syslog Message

CIFS local users and groups import job failed for Vserver %s. Reason: %s.

Parameters

vserver (STRING): Name of the Vserver.
reason (STRING): Reason for the failure.

cifs.replay events

cifs.replay.failure

Severity

ALERT

Description

This message occurs when configuration is not synchronized. This might cause the node experiencing the problem to become unresponsive to data access.

Corrective Action

Contact NetApp technical support. Be prepared to provide log files to technical support, particularly the "mgwd.log" and "sktrace.log" files.

Syslog Message

Failed to replay configuration for %s module.

Parameters

module (STRING): Name of the module for which configuration is not synchronized.

cifs.server events

cifs.server.auth.StyleMismatch

Severity

ERROR

Description

This message occurs when the Vserver DR subsystem detects that the authentcation style (domain or workgroup) of the source Vserver's CIFS server does not match the authentication style of the destination Vserver's CIFS server

Corrective Action

Use the 'vserver cifs modify' command to configure the source or destination Vserver's CIFS server into a domain or workgroup as necessary for the authentication styles to match.

Vserver DR check found that the CIFS server authentication style of the source Vserver, %s, did not match the authentication style of the destination Vserver, %s.

Parameters

source_vserver (STRING): Name of the source Vserver of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.

cifs.shadowcopy events

cifs.shadowcopy.abort

Severity

NOTICE

Description

This message occurs when a shadow copy set is automatically aborted when no activity has been detected for a certain period of time. This condition could be caused by improper operation of the backup application and/or the Volume Shadow Copy Service (VSS) client, or the loss of network connection to the host.

Corrective Action

Check the backup application and VSS client. Verify the network connection between the file server and the client.

Syslog Message

The shadow copy set (Client Shadow Copy Set ID : %s , Filer Shadow Copy Set ID : %s) has been automatically aborted. No activity has been seen for at least %d minutes.

Parameters

clientShadowCopySetId (STRING): Client Shadow Copy Set ID.
filerShadowCopySetId (STRING): File Server Shadow Copy Set ID.
timeout (INT): No activity timeout in minutes.

cifs.shadowcopy.failure

Severity

ERROR

Description

This message occurs when a shadow copy operation has failed.

Corrective Action

Using the information provided in the event message, here are some things to check on your system: Shadow copy configuration; Is the feature enabled? Are the appropriate licenses installed? Share(s) on which the shadow copy operation is performed; Is the share name correct? Does the share path exist? State of the shadow copy set and its shadow copies.

Syslog Message

A shadow copy operation has failed: %s. (Operation : %s , Client Shadow Copy Set ID : %s , Filer Shadow Copy Set ID : %s , Client Shadow Copy ID : %s , Filer Shadow Copy ID : %s , Share Name : %s, Object type is: %s with UUID: %s)

Parameters

errMsg (STRING): Reason the Shadow Copy operation failed.
operation (STRING): Shadow Copy operation that failed.
clientShadowCopySetId (STRING): Client Shadow Copy Set ID.
filerShadowCopySetId (STRING): File Server Shadow Copy Set ID.
clientShadowCopyId (STRING): Client Shadow Copy ID.
filerShadowCopyId (STRING): File Server Shadow Copy ID.
shareName (STRING): Share Name.
object_type (STRING): Type of resource object.
object_uuid (STRING): UUID of the resource object.

cifs.static events

cifs.static.homedir.create

Severity

ERROR

Description

This message occurs when a user creates a static home directory without a substitution value (%u or %w) to uniquely identify a home directory share. If multiple users from the same client access their home directories at the same time, unprotected access to each other's files can occur. This might cause unexpected \"access denied\" errors on those files, and data corruption within those files. Note: multiple users from a single client is most likely in a Citrix or Windows Terminal Services environment.

Corrective Action

Ensure that a substitution value (%u or %w) is provided to the name of the home directory share.

Syslog Message

A static home directory share "%s" without a substitution value (%%u or %%w) is created on Vserver: %s.

Parameters

shareName (STRING): Name of the share that the user has created.
vserverName (STRING): Name of the Vserver associated with this operation.

clam events

clam.disable events

clam.disable

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) is disabled by either turning off the KCS capability or by setting the 'clam sysctl/bootarg' variable.

Corrective Action

If you want CLAM functionality disabled, no action is needed. Otherwise, reenable CLAM and reboot the node to make CLAM operational again.

Syslog Message

CLAM functionality is disabled.

Parameters

(None).

clam.disable.takeover

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) is disabled from initiating storage failover requests. This capability is automatically disabled in a NAS-only configuration. To control the setting of CLAM takeover, additional interfaces, such as sysctl bootarg, are provided.

Corrective Action

No action is needed.

Syslog Message

CLAM is disabled from performing storage failover.

Parameters

(None).

clam.enable events

clam.enable

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) is enabled to operate on this node. When all nodes in the cluster are upgraded to a KCS-available image, KCS capability gets turned on. This event is an indication that CLAM will be now begin to function.

Corrective Action

No action is needed.

Syslog Message

CLAM functionality is enabled.

Parameters

(None).

clam.enable.takeover

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) is enabled to initiate storage failover requests when the CLAM OOQ (Out Of Quorum) condition is detected on the partner node. This capability is automatically enabled in a scalable SAN configuration. To control the setting of CLAM takeover, additional interfaces, such as sysctl bootarg, are provided.

Corrective Action

No action is needed.

Syslog Message

CLAM is enabled to perform storage failover when partner node is OOQ.

Parameters

(None).

clam.failover events

clam.failover.event

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) receives a failover event from high-availability(HA) subsystem.

Corrective Action

(None).

Syslog Message

CLAM on node (id=%llu) received an HA failover event for partner (ID=%llu) indicating that %s.

Parameters

> **localnodeid** (LONGINT): Node ID of the local node.
> **partnernodeid** (LONGINT): Node ID of the partner node.
> **event_description** (STRING): Description of the event that CLAM received from the HA subsystem.

clam.heartbeat events

clam.heartbeat.state.change

Severity

> INFORMATIONAL

Description

> This message occurs when the Kernel Cluster Services Connectivity, Liveliness, Availability Monitor (CLAM) detects that the state of the heartbeats to a node changed(that is, either the heartbeats started succeeding or they started failing).

Corrective Action

> Take one or more of the following actions: - A repeated toggling of the heartbeat state indicates intermittent network issues. Check the connectivity of the node to the cluster interconnect and fix any problems. - In all the other cases, the heartbeat failure will eventually result in the node going out of quorum. If that happens, take the actions prescribed for "EMS_clam_node_ooq event".

Syslog Message

> Heartbeats to node (name=%s, ID=%llu) are %s.

Parameters

> **hostname** (STRING): Host name of the node.
> **nodeid** (LONGINT): Node ID of the node.
> **state** (STRING): New state of the heartbeats to this node.

clam.invalid events

clam.invalid.config

Severity

> ERROR

Description

> This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) determines that the local node is in an invalid configuration for providing CLAM functionality.

Corrective Action

> Take one or more of the following actions, as appropriate: - Enable failover on the node by running the 'storage failover modify -node node_name -enabled true' command. - If there is a version incompatibility between the local node and the other nodes in the cluster, upgrade the nodes as needed.

Syslog Message

> Local node (name=%s, id=%llu) is in an invalid configuration for providing CLAM functionality. CLAM cannot determine the identity of the HA partner.

Parameters

    localhostname (STRING): Host name of the local node.
    localnodeid (LONGINT): Node ID of the local node.

clam.mailbox events

clam.mailbox.initialized

Severity

    INFORMATIONAL

Description

    This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) has written to the high availability (HA) mailboxes that it has initialized and is ready to participate in CLAM quorum.

Corrective Action

    (None).

Syslog Message

    CLAM on local node has initialized its mailboxes and is ready to participate in quorum.

Parameters

    (None).

clam.node events

clam.node.disabled

Severity

    INFORMATIONAL

Description

    This message occurs when the local Connectivity, Liveliness and Availability Monitor (CLAM) concludes that the local node is now disabled.

Corrective Action

    This EMS is logged when the local node has lost connectivity with the rest of the nodes in the cluster and the connectivity has not been restored in time for the local node to participate in cluster quorum. Take the actions prescribed for "EMS_clam_node_ooq" event.

Syslog Message

    CLAM published an event indicating the local node is now disabled(reason: %s).

Parameters

    disabled_reason (STRING): Reason for the node getting disabled.

clam.node.inq

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) determines that a node in the cluster has transitioned to "cluster quorum".

Corrective Action

(None).

Syslog Message

Cluster node (name=%s, ID=%llu) is in "CLAM quorum".

Parameters

hostname (STRING): Host name of the cluster node that transitioned to quorum.
nodeid (LONGINT): Node ID of the cluster node that transitioned to quorum.

clam.node.ooq

Severity

EMERGENCY

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) determines that a node in the cluster is out of "cluster quorum".

Corrective Action

Take one or more of the following actions: - Follow the KB article 2022109 to troubleshoot the resolve the issue. - Check the connectivity of the node to the cluster interconnect and fix any problems. - If the local node is administratively disabled, enable it by running the following command from the clustershell 'cluster modify -node node_name -eligibility true'. - If the node is supposed to be in an HA pair but is not, enable the HA pair. You can check whether a node is in an HA pair by running 'storage failover show' command from the clustershell. You can enable storage failover by running the 'storage failover modify -enabled true' command from the clustershell. - If there is a version incompatibility between the local node and the other nodes in the cluster, upgrade the nodes as needed. You can see the software version of all the nodes from the clustershell using the 'version -node *' command.

Syslog Message

Node (name=%s, ID=%llu) is out of "CLAM quorum" (reason=%s).

Parameters

hostname (STRING): Host name of the node that is out of quorum.
nodeid (LONGINT): Node ID of the node that is out of quorum.
reason (STRING): Reason for the out of quorum transition.

clam.node.paused

Severity

INFORMATIONAL

Description

This message occurs when the local Connectivity, Liveliness and Availability Monitor (CLAM) entered a paused state.

Corrective Action

(None).

Syslog Message

CLAM published an event indicating the local node has paused.

Parameters

(None).

clam.node.resumed

Severity

INFORMATIONAL

Description

This message occurs when the local Connectivity, Liveliness and Availability Monitor (CLAM) was previously in a paused state and has now resumed.

Corrective Action

(None).

Syslog Message

CLAM published an event indicating the local node has resumed.

Parameters

(None).

clam.node.start.voting

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) on a local node has started to vote for its high-availability (HA) partner node.

Corrective Action

(None).

Syslog Message

CLAM on local node (ID:%llu) has started to vote for its HA partner node (ID:%llu).

Parameters

local_id (LONGINT): Node ID of the local node.
partner_id (LONGINT): Node ID of the partner node.

clam.node.stop.voting

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) on a local node has stopped voting for its high-availability (HA) partner node.

Corrective Action

(None).

Syslog Message

CLAM on local node (ID:%llu) has stopped to vote for its HA partner node (ID:%llu).

Parameters

local_id (LONGINT): Node ID of the local node.
partner_id (LONGINT): Node ID of the partner node.

clam.partner events

clam.partner.halting

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveness, Availability Monitor (CLAM) is notified that its high-availability (HA) partner node is undergoing a planned shutdown.

Corrective Action

(None).

Syslog Message

CLAM is notified that its HA partner node is undergoing a planned shutdown (reason: %s).

Parameters

reason (STRING): Reason for the partner beginning the halt process.

clam.peer events

clam.peer.halting

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveness, and Availability Monitor (CLAM) is notified that its high-availability (HA) partner node is undergoing a planned shutdown.

Corrective Action

(None).

Syslog Message

CLAM is notified that node %s (ID=%llu) is undergoing a planned shutdown.

Parameters

hostnode (STRING): Name of node beginning the halt process.
nodeid (LONGINT): ID of node beginning the halt process.

clam.reenable events

clam.reenable

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) is reenabled to operate on this node after being intentionally disabled. The intentional disabling could have been through turning off KCS capability or setting the 'clam bootarg/sysctl' variable. Reenabling CLAM functionality warrants a reboot, upon which CLAM will be functional.

Corrective Action

Reboot the node to make CLAM operational.

Syslog Message

CLAM functionality is reenabled. Reboot the node to make CLAM operational.

Parameters

(None).

clam.start events

clam.start.mailbox.polling

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) has started a poll to read CLAM mailboxes.

Corrective Action

(None).

Syslog Message

CLAM on local node (ID=%llu) has started a poll to read HA partner (ID=%llu) mailbox.

Parameters

    local_id (LONGINT): Node ID of the local node.
    partner_id (LONGINT): Node ID of the partner node.

clam.stop events

clam.stop.mailbox.polling

Severity

    INFORMATIONAL

Description

    This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) has stopped polling the CLAM mailboxes.

Corrective Action

    (None).

Syslog Message

    CLAM on local node (ID=%llu) has stopped the poll to read HA partner (ID=%llu) mailbox.

Parameters

    local_id (LONGINT): Node ID of the local node.
    partner_id (LONGINT): Node ID of the partner node.

clam.takeover events

clam.takeover

Severity

    INFORMATIONAL

Description

    This message occurs when the Kernel Cluster Services Connectivity, Liveliness, Availability Monitor (CLAM) triggers takeover of a partner node after determining that the local node is in "CLAM quorum" and the partner node is out of "CLAM quorum".

Corrective Action

    Take one or more of the following actions: - If the node panicked or is hung, troubleshoot and resolve the problem. - Check the connectivity of the node to the cluster interconnect and fix any problems. - If the local node is administratively disabled, enable it by running the following command from the clustershell 'cluster modify -node node_name -eligibility true'. - If the node is supposed to be in an HA pair but is not, enable the HA pair. You can check whether a node is in an HA pair by running the 'storage failover show' command from the clustershell. You can enable storage failover by running the 'storage failover modify -enabled true' command from the clustershell. - If there is a version incompatibility between the local node and the other nodes in the cluster, upgrade the nodes as needed. You can see the software version of all the nodes from the clustershell using the 'version -node *' command.

Syslog Message

    Local node (name=%s, ID=%llu) initiated takeover of partner node (name=%s, ID=%llu, state=%llu)

result=%s, type=%s.

Parameters

localhostname (STRING): Host name of the local node.
localnodeid (LONGINT): Node ID of the local node.
partnerhostname (STRING): Host name of the partner node.
partnernodeid (LONGINT): Node ID of the partner node.
partnerstate (LONGINTHEX): The high-availability state of the partner node
result (STRING): Result of the takeover initiation operation.
type (STRING): Takeover Type.

clam.takeover.disallowed

Severity

INFORMATIONAL

Description

This message occurs when Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) cannot initiate takeover operations. Takeover is disallowed by High Availability (HA) susbsystem on the partner node.

Corrective Action

(None).

Syslog Message

CLAM on node %s (ID=%llu) cannot proceed with a takeover operation of partner node %s (ID=%llu) because HA disallowed takeover. Reason :%s

Parameters

local_host_name (STRING): Host name of the local node.
localnodeid (LONGINT): Node ID of the local node.
partner_host_name (STRING): Host name of the partner node.
partnernodeid (LONGINT): Node ID of the partner node.
reason (STRING): Reason takeover was disabled.

clam.update events

clam.update.partner.state

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) updates the failover state of the partner.

Corrective Action

(None).

Syslog Message

CLAM on node (ID=%llu) updated failover state of partner (ID=%llu) to %s.

Parameters

localnodeid (LONGINT): Node ID of the local node.
partnernodeid (LONGINT): Node ID of the partner node.
partner_state (STRING): Description of the partner state.

clam.valid events

clam.valid.config

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services (KCS) Connectivity, Liveliness, Availability Monitor (CLAM) determines that the local node is in a valid configuration for providing CLAM functionality.

Corrective Action

No action is needed.

Syslog Message

Local node (name=%s, id=%llu) is operating in a suitable configuration for providing CLAM functionality.

Parameters

localhostname (STRING): Host name of the local node.
localnodeid (LONGINT): Node ID of the local node.
partnerhostname (STRING): Host name of the partner node.
partnernodeid (LONGINT): Node ID of the partner node.

clam.voting events

clam.voting.state.change

Severity

INFORMATIONAL

Description

This message occurs when the Kernel Cluster Services Connectivity, Liveliness, Availability Monitor (CLAM) detects that the voting state of the node changed.

Corrective Action

(None).

Syslog Message

CLAM on node (name=%s, ID=%llu) has %s voting for its HA partner node(name=%s, ID=%llu).

Parameters

local_hostname (STRING): Host name of the local node.
localId (LONGINT): Node ID of the local node.
state (STRING): New voting state of the node.
partner_hostname (STRING): Host name of the HA partner node.

partnerId (LONGINT): Node ID of the HA partner node.

clone events

clone.split events

clone.split.objcopy.failed

Severity

ERROR

Description

This message occurs when the volume clone split object copy operation (which copies objects from source volume to a clone) fails because it is unable to read source objects due to unauthorized access to the object store container. The volume clone split object copy operation will be aborted and must be restarted manually after a valid access token is added to the object store configuration.

Corrective Action

Ensure that you have added the shared access signature token to the object store configuration. The access token can be added to the configuration using the "storage aggregate object-store config modify" command. Additionally, ensure that the configuration of your object store has not changed, and that login and connectivity information are still accurate. The volume clone split object copy operation can be restarted using the "volume clone split start -match-parent-storage-tier true" command. If the condition persists, contact NetApp technical support.

Syslog Message

Clone split object copy operation to copy objects from source volume to clone failed on volume "%s" (aggregate %s) because of unauthorized access to the object store container. Aborting the volume clone object copy split operation.

Parameters

volume_name (STRING): Clone volume.
aggregate_name (STRING): FabricPool aggregate.

cloud events

cloud.aws events

cloud.aws.iamCredsExpired

Severity

ERROR

Description

This message occurs when the IAM Role thread acquires Amazon Web Services (AWS) Identity and Access Management (IAM) role-based credentials that have already expired. The credentials are acquired from the AWS metadata server using the IAM role, and are used in signing API requests to AWS S3.

Corrective Action

Log in to the AWS EC2 Management Console, click on the 'Instances' page, and then find and check the health of the instance pertaining to this ONTAP Cloud deployment. Also verify that the AWS IAM role associated with the instance exists and grants proper privileges to the instance.

Syslog Message

ONTAP acquired AWS credentials associated with the AWS IAM role named '%s' on the AWS metadata server that have already expired. Node %s.

Parameters

iamRole (STRING): Name of the IAM role associated with this ONTAP Cloud® instance.
nodeUuid (STRING): UUID of the node.

cloud.aws.iamCredsInvalid

Severity

ERROR

Description

This message occurs when the system acquires Amazon Web Services (AWS) Identity and Access Management (IAM) role-based credentials that are not valid.

Corrective Action

In the AWS EC2 Management Console, find and check the health of the instance pertaining to this ONTAP Cloud deployment. Also, verify that the AWS IAM role associated with the instance exists and grants proper privileges to the instance.

Syslog Message

AWS credentials that were acquired by ONTAP are not valid. AWS IAM role: %s. Node: %s.

Parameters

iamRole (STRING): Name of the IAM role associated with this ONTAP Cloud instance.
nodeUuid (STRING): UUID of the node.

cloud.aws.iamCredsNotFound

Severity

ERROR

Description

This message occurs when the cloud credentials thread cannot acquire Amazon Web Services (AWS) Identity and Access Management (IAM) role-based credentials from the AWS metadata server. The credentials are used in signing API requests to AWS S3.

Corrective Action

Log in to the AWS EC2 Management Console, click on the 'Instances' page, and then find and check the health of the instance pertaining to this Cloud Volumes ONTAP® deployment. Also verify that the AWS IAM role associated with the instance exists and grants proper privileges to the instance.

Syslog Message

ONTAP cannot acquire credentials associated with the AWS IAM role or GCP Service Account named '%s' on the metadata server. Node %s.

Parameters

iamRole (STRING): Name of the AWS IAM role associated associated with this Cloud Volumes ONTAP® instance.
nodeUuid (STRING): UUID of the node.

cloud.aws.iamNotInitialized

Severity

NOTICE

Description

This message occurs when a module attempts to access Amazon Web Services (AWS) Identity and Access Management (IAM) role-based credentials from the cloud credentials thread before the cloud thread is finished initializing.

Corrective Action

Wait for the cloud credential thread, and by extension the system, to complete initialization.

Syslog Message

A module attempted to access credential information before the cloud credential thread initialized on node %s.

Parameters

nodeUuid (STRING): UUID of the node.

cloud.aws.iamRoleInvalid

Severity

ERROR

Description

This message occurs when the system acquires an Amazon Web Services (AWS) Identity and Access Management (IAM) role on the AWS metadata server that is not valid.

Corrective Action

In the AWS EC2 Management Console, find and check the health of the instance pertaining to this ONTAP Cloud deployment. Also, verify that the AWS IAM role associated with the instance exists and grants proper privileges to the instance.

Syslog Message

IAM role "%s" on the AWS metadata server is not valid for this ONTAP instance (node %s).

Parameters

iamRole (STRING): Name of the IAM role associated with this ONTAP Cloud instance.
nodeUuid (STRING): UUID of the node.

cloud.aws.iamRoleNotFound

Severity

ERROR

Description

This message occurs when the IAM Role thread cannot find an Amazon Web Services (AWS) Identity and Access Management (IAM) role on the AWS metadata server. The IAM role is needed to obtain role-based credentials used in signing API requests to AWS S3.

Corrective Action

Log in to the AWS EC2 Management Console, click on the 'Instances' page, and then find and check the health of the instance pertaining to this ONTAP Cloud® deployment. Also verify that the AWS IAM role associated with the instance exists.

Syslog Message

ONTAP node %s cannot find an IAM role on the AWS metadata server.

Parameters

nodeUuid (STRING): UUID of the node.

cloud.aws.metadataConnFail

Severity

ERROR

Description

This message occurs when the IAM Role thread cannot establish a communication link with the Amazon Web Services (AWS) metadata server. Communication must be established to acquire the necessary AWS Identity and Access Management (IAM) role-based credentials used in signing API requests to AWS S3.

Corrective Action

Log in to the AWS EC2 Engine Management Console, click on the 'Instances' page, and then find and check the health of the instance pertaining to this Cloud Volumes ONTAP® deployment.

Syslog Message

ONTAP cannot communicate with the AWS metadata server needed to acquire IAM role-based or Service Account based credentials for access to AWS S3 Storage. Error returned: %s Node: %s

Parameters

error (STRING): Error code and string, if applicable.
nodeUuid (STRING): UUID of the node.

cloud.azurecredsinvalid events

cloud.azureCredsInvalid

Severity

ERROR

Description

This message occurs when the system acquires Azure Managed Service Identity (MSI) credentials that are not valid.

Corrective Action

In the Azure Portal, find and check the health of the instance pertaining to this Cloud Volumes ONTAP® deployment. Also, verify that the MSI associated with the instance is enabled and grants proper privileges to the instance.

Syslog Message

Azure MSI credentials that were acquired by ONTAP are not valid. Node UUID: %s.

Parameters

nodeUuid (STRING): UUID of the node.

cloud.bin events

cloud.bin.objcopy.failed

Severity

ERROR

Description

This message occurs when the cloud bin object copy operation (which copies objects from a source object store to a destination object store) fails because it is unable to read source objects due to unauthorized access to the object store container.

Corrective Action

Ensure that you have added the shared access signature token to the source object store configuration. The access token can be added to the configuration using the "storage aggregate object-store config modify" command. Additionally, ensure that the configuration of your object store has not changed, and that login and connectivity information are still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Cloud bin object copy operation to copy objects from a source object store to destination object store failed for "%s" operation because of unauthorized access to the source object store container ("%s").

Parameters

op_name (STRING): Operation context in which object copy is called. This can be either clone split or svm migrate.
container_name (STRING): Source object store container name

cloud.creds events

cloud.creds.metadataConnFail

Severity

ERROR

Description

This message occurs when the system cannot establish a communication link with the cloud provider's metadata server, in order to acquire the necessary temporary credentials used in signing API requests to the cloud object store server.

Corrective Action

Log in to the cloud provider's management console to examine the current set of running instances. Find the instance pertaining to this deployment of Cloud Volumes ONTAP® deployment, and then check its health from the console.

Syslog Message

ONTAP cannot communicate with the cloud provider's metadata server needed to acquire the temporary credentials used to access an object store server. Command: %s Error returned: %s Node: %s

Parameters

command (STRING): Command used to contact the metadata server.
error (STRING): Error text received as response to the metadata server command.
nodeUuid (STRING): UUID of the node.

cloud.creds.notFound

Severity

ERROR

Description

This message occurs when the system cannot acquire the temporary credentials from the cloud provider's metadata server that are necessary for signing API requests to the object storage server.

Corrective Action

Log in to the management console of the cloud provider to examine the current set of running instances. Find and check the health of the instance pertaining to this Cloud Volumes ONTAP deployment. Also verify that the role associated with the instance exists and grants the proper privileges.

Syslog Message

ONTAP cannot acquire credentials associated with the instance named '%s' on the metadata server. Node %s.

Parameters

role (STRING): Name of the AWS IAM role or GCP Service Account or Azure Managed Service Identity associated with this Cloud Volumes ONTAP® instance.
nodeUuid (STRING): UUID of the node.

cloud.creds.notInitialized

Severity

NOTICE

Description

This message occurs when the system attempts to access credentials before initialization is complete.

Corrective Action

(None).

Syslog Message

Module on node %s attempted to access credential information before initialization was complete

Parameters

nodeUuid (STRING): UUID of the node.

cloud.gcpcredsinvalid events

cloud.gcpCredsInvalid

Severity

ERROR

Description

This message occurs when the system acquires Google Cloud Platform (GCP) Service Account based credentials that are not valid.

Corrective Action

In the Google Cloud Console, find and check the health of the instance pertaining to this Cloud Volumes ONTAP® deployment. Also, verify that the Service Account associated with the instance exists and grants proper privileges to the instance.

Syslog Message

GCP credentials that were acquired by ONTAP are not valid. Node: %s.

Parameters

nodeUuid (STRING): UUID of the node.

clus events

clus.net events

clus.net.noNeighbors

Severity

ALERT

Description

This message occurs when the cluster network ports with "link" reported as "up" are neither receiving CDP nor LLDP neighbor announcements. This is not a supported configuration and can negatively impact the performance of the cluster.

Corrective Action

Use the "network port show -ipspace Cluster -link up" command to list the ports expected to receive CDP and/or LLDP announcements. Verify that CDP and/or LLDP is enabled on the switch the cluster ports are wired to. Use the "network device-discovery show" command to view the announcements for each of the cluster ports.

Syslog Message

The cluster ports with "link" reported as "up" are neither receiving CDP nor LLDP neighbor announcements.

Parameters

(None).

clus.net.switchlessInv

Severity

NOTICE

Description

This message occurs when the "switchless-cluster" option is disabled, but one or more cluster ports are directly wired to a cluster port on another node. This could result in packet loss across the cluster network, causing file operations to fail as well as loss of quorum.

Corrective Action

Use the "network options switchless-cluster modify" command to enable support for switchless clusters.

Syslog Message

One or more cluster ports are directly wired to a cluster port on another node, but the "switchless-cluster" option is not enabled.

Parameters

(None).

clus.net.switchlessMismatch

Severity

NOTICE

Description

This message occurs when the "switchless-cluster" option is enabled, but all of the cluster ports are wired to a switch. This configuration will negatively impact the performance of the cluster network.

Corrective Action

Use the "network options switchless-cluster modify" command to disable support for switchless clusters.

Syslog Message

All of the cluster ports are wired to a switch, but the "switchless-cluster" option is enabled.

Parameters

(None).

clus.reboot events

clus.reboot.internalError

Severity

ALERT

Description

This message occurs when the cluster reboot detection feature detects an internal software error due to insufficient system resources.

Corrective Action

Reboot the node by using the "system node reboot -node <nodename>" command. Contact NetApp technical support if further assistance is needed.

Syslog Message

Cluster reboot detection feature detected an internal software error. Error: '%s'.

Parameters

error (STRING): Internal software error.

clus.reboot.noBootSequence

Severity

ERROR

Description

This message occurs when the cluster reboot detection feature fails to obtain the node boot sequence from the /var/BOOT_SEQ file.

Corrective Action

Contact NetApp technical support.

Syslog Message

Cluster reboot detection feature failed to obtain the node boot sequence from /var/BOOT_SEQ file.

Parameters

(None).

clus.reboot.persistencyError

Severity

ERROR

Description

This message occurs when the cluster reboot detection feature fails to save the node reboot information persistently.

Corrective Action

Reboot the node by using the "system node reboot -node nodename" command. Contact NetApp technical support if further assistance is needed.

Syslog Message

Cluster reboot detection feature failed to save the node reboot information persistently. Error: '%s'.

Parameters

error (STRING): Error returned by the save operation.

clus.reboot.rebootDetected

Severity

NOTICE

Description

This message occurs when a cluster reboot is detected.

Corrective Action

(None).

Syslog Message

Cluster reboot was detected at %s. Sequence number for the cluster reboot was %d. Estimated beginning time of the cluster reboot was %s.

Parameters

endtime (STRING): End time of the cluster reboot.
sequence (LONGINT): Sequence number of the detected cluster reboot.
begintime (STRING): Estimated beginning time of the cluster reboot based on the last known time the cluster was operational.

cluster events

cluster.epsilon events

cluster.epsilon.assign.fail

Severity

ERROR

Description

This message occurs when automatic assignment of epsilon to a node fails, alerting the customer that there is no epsilon on their system. Attempts to assign epsilon continue until automatic assignment succeeds or epsilon is assigned manually.

Corrective Action

Try to manually assign epsilon to a healthy node using the command 'cluster modify -node node-name -epsilon true'. Contact NetApp technical support if epsilon cannot be assigned.

Syslog Message

Epsilon could not be automatically assigned to node %s with error %s.

Parameters

node (STRING): Name of the node that epsilon was being assigned to.
error (STRING): Error string detailing why epsilon assignment failed.

cluster.epsilon.assigned

Severity

INFORMATIONAL

Description

This message occurs when epsilon is assigned to a node either manually by a user-initiated command or automatically by the system.

Corrective Action

(None).

Syslog Message

Epsilon was assigned to node %s by %s.

Parameters

node (STRING): Name of the node epsilon was assigned to.
actor (STRING): Whether the change was made manually by a user command or automatically by the system.

cluster.epsilon.removed

Severity

INFORMATIONAL

Description

This message occurs when epsilon is removed from a node either manually by a user-initiated command or automatically by the system.

Corrective Action

(None).

Syslog Message

Epsilon was removed from node %s by %s.

Parameters

node (STRING): Name of the node that epsilon was removed from.
actor (STRING): Whether the change was made manually by a user command or automatically by the system.

cluster.ha events

cluster.ha.not.configured

Severity

ERROR

Description

This message occurs when cluster HA has not been configured on a 2-node cluster with HA mode enabled.

Corrective Action

Use the 'cluster ha modify -configured true' command to configure cluster HA.

Syslog Message

Cluster HA has not been configured. Cluster HA must be configured on a 2-node cluster to ensure data access availability in the event of storage failover.

Parameters

(None).

cluster.image events

cluster.image.update.aborted

Severity

INFORMATIONAL

Description

This message occurs when a non-disruptive data ONTAP upgrade of the cluster was aborted by the user.

Corrective Action

(None).

Syslog Message

A non-disruptive data ONTAP upgrade of the cluster was aborted by the user

Parameters

(None).

cluster.network events

cluster.network.config

Severity

NOTICE

Description

This message occurs when a two node cluster transitions between a switched and switchless configuration.

Corrective Action

(None).

Syslog Message

The cluster network configuration transitioned to %s.

Parameters

current_configuration (STRING): Displays if the current configuration is switched or switchless.

cluster.op events

cluster.op.fail

Severity

ERROR

Description

This message occurs when a "cluster create" or a "cluster join" or a "cluster unjoin" operation is attempted but does not succeed.

Corrective Action

Run the command specified to complete the cluster operation. Resolve the issue, and then try the command again.

Syslog Message

(None).

Parameters

operation_type (STRING): Type of cluster operation.
node (STRING): Name of the node that attempted the cluster operation.
serial (STRING): System serial number of the node that attempted the cluster operation.

cluster.op.not.complete

Severity

ERROR

Description

This message occurs when a cluster create or cluster join operation fails to complete. The node is not fully operational and many commands will not work properly until this is resolved.

Corrective Action

Run the command specified to complete the cluster operation. Resolve the issue, and then try the command again.

Syslog Message

Cluster operation (%s) failed to complete for node %s. The node is not fully operational.

Parameters

command (STRING): Command for the cluster operation.
node (STRING): Name of the node.

cluster.op.rerun.fail

Severity

ERROR

Description

This message occurs when a previously failed cluster create or cluster join operation that is automatically rerun in background fails. The operation is automatically retried a maximum of 'max_retry_count' times at an interval of 'retry_interval' seconds.

Corrective Action

To view the reason for failure, run the operation manually. Alternatively, allow the automatic reruns to execute in case the issue is temporary or fixed. To view the progress of these background attempts, use the command 'event log show -event cluster.op.rerun*'. You may rerun the operation manually at any time, without waiting for these background runs to complete.

Syslog Message

Attempt to %s cluster named '%s' in the background failed. This was retry attempt %d of %d.

Parameters

operation_type (STRING): Type of cluster operation.
cluster_name (STRING): Name of the cluster that is being created or joined.
retry_count (INT): Number of attempts made to rerun the cluster create or join operations in the background.
max_retry_count (INT): Maximum number of retry attempts allowed to rerun the cluster create or join operation in the background.
retry_interval (INT): Interval of time, in seconds, between each rerun attempt.

cluster.op.rerun.start

Severity

INFORMATIONAL

Description

This message occurs when a previously failed cluster create or cluster join operation is rerun in the background in an attempt to successfully complete the operation. The operation is automatically retried a maximum of 'max_retry_count' times at an interval of 'retry_interval' seconds.

Corrective Action

To view the reason for failure, run the operation manually. Alternatively, allow the automatic reruns to execute in case the issue is temporary or fixed. To view the progress of these background attempts, use the command 'event log show -event cluster.op.rerun*' You may rerun the operation manually at any time, without waiting for these background runs to complete.

Syslog Message

Attempt to %s cluster named '%s' in the background. This is retry attempt %d of %d.

Parameters

operation_type (STRING): Type of cluster operation.
cluster_name (STRING): Name of the cluster that is being created or joined.
retry_count (INT): Number of attempts to retry the cluster create or join operation in the background.
max_retry_count (INT): Maximum number of rerun attempts allowed.
retry_interval (INT): Interval of time, in seconds, between each rerun attempt.

cluster.op.rerun.success

Severity

INFORMATIONAL

Description

This message occurs when a previously failed cluster create or cluster join operation automatically rerun in the background is successful.

Corrective Action

(None).

Syslog Message

Cluster %s operation run in the background completed successfully for cluster name '%s'.

Parameters

operation_type (STRING): Type of cluster operation.
cluster_name (STRING): Name of the cluster that is being created or joined.

cluster.op.start

Severity

INFORMATIONAL

Description

This message occurs when a "cluster create" or a "cluster join" or a "cluster unjoin" operation is run.

Corrective Action

(None).

Syslog Message

(None).

Parameters

operation_type (STRING): Type of cluster operation.
node (STRING): Name of the node being operated on or empty if the name is not yet set.
serial (STRING): System serial number of the node being operated on or empty if the serial number is not set.

cluster.op.success

Severity

INFORMATIONAL

Description

This message occurs when a cluster has been successfully created or a node has successfully joined or unjoined the cluster.

Corrective Action

(None).

Syslog Message

(None).

Parameters

operation_type (STRING): Type of cluster operation.
node (STRING): Name of the node that successfully performed the cluster operation.
serial (STRING): System serial number of the node that successfully performed the cluster operation.

cluster.port events

cluster.port.unsupport.speed

Severity

ERROR

Description

This message occurs when the cluster ports are operating at an unsupported speed.

Corrective Action

Ensure that the cluster port has a supported network interface card installed, and that it is operating at the supported speed.

Syslog Message

%s node %s cluster ports are not operating at a supported speed. Ensure that ports %s have supported network interface card installed, and are operating at a supported speed: %s.

Parameters

model_name (STRING): Model on which the misconfigured ports reside.
node (STRING): Node on which the misconfigured ports reside.
portlist (STRING): List of misconfigured ports.
supported_speed (STRING): Speed at which the port is supported.

cluster.repl events

cluster.repl.localNW.unreachable

Severity

NOTICE

Description

This message occurs when the cluster replication heartbeat to a peer cluster cannot reach the local management gateway process for a minimum of 300 seconds. This potentially affects MetroCluster(tm) and Vserver disaster recovery (DR) applications.

Corrective Action

(None).

Syslog Message

The cluster replication heartbeat could not reach the local management gateway process for at least %d seconds.

Parameters

durationSinceLastSuccess (INT): Number of seconds since the problem first occurred.

cluster.repl.peer.reachable

Severity

NOTICE

Description

This message occurs when the cluster replication heartbeat can now reach the peer cluster, after previous failures resulted in raising one of the following events: cluster.repl.localNW.unreachable, cluster.repl.peerNW.unreachable, or cluster.repl.remoteApp.unreachable.

Corrective Action

(None).

Syslog Message

The cluster replication heartbeat can now reach peer cluster %s.

Parameters

peerIPaddress (STRING): Peer cluster IP address that can now be reached.

cluster.repl.peerNW.unreachable

Severity

ALERT

Description

This message occurs when the cluster replication heartbeat to the peer cluster fails for a minimum of 300 seconds. This potentially affects MetroCluster(tm) and Vserver disaster recovery (DR) applications.

Corrective Action

Verify network connectivity between the local cluster and the peer cluster. Check the cluster peer EMS messages for more information.

Syslog Message

The cluster replication heartbeat to peer cluster %s failed for at least %d seconds.

Parameters

peerIPaddress (STRING): Cluster peer IP address that could not be reached.
durationSinceLastSuccess (INT): Number of seconds since the problem first occurred.

cluster.repl.remoteApp.unreachable

Severity

ALERT

Description

This message occurs when the cluster replication heartbeat to the remote cluster replication application fails for a minimum of 300 seconds. This potentially affects MetroCluster(tm) and Vserver disaster recovery (DR) applications.

Corrective Action

Check the state of the replication application process running on the peer cluster by issuing the 'cluster ring show -unitname crs' command.

Syslog Message

The cluster replication heartbeat to the remote application running on peer cluster %s failed for at least %d seconds.

Parameters

peerIPaddress (STRING): Remote application cluster IP address that could not be reached.
durationSinceLastSuccess (INT): Number of seconds since the problem first occurred.

cluster.switch events

cluster.switch.count

Severity

ALERT

Description

This message occurs when an insufficient number of cluster switches are discovered for a redundant cluster network configuration.

Corrective Action

1) Ensure that a redundant pair of cluster switches exist in the network. 2) Ensure that cluster ports are connected to both switches. 3) Enable Cisco Discovery Protocol (CDP), Industry Standard Discovery Protocol (ISDP) or Link Layer Discovery Protocol (LLDP) on the switches, if you previously disabled it. CDP/ISDP/LLDP is enabled by default. Refer to your switch documentation for instructions. 4) If ONTAP cannot automatically discover a switch, use the "system switch ethernet create" command to configure discovery and monitoring of the switch.

Syslog Message

Cluster switches discovered: %d, but %d switches required for redundancy.

Parameters

count (INT): Number of cluster switches discovered.
required (INT): Number of cluster switches required.

cluster.switch.pwr.count

Severity

INFORMATIONAL

Description

The power supply on the switch is missing. The remaining power supply is a single point of failure. The switch might shut down with the next PSU failure.

Corrective Action

1) Check whether the switch's power supply unit is properly inserted into the chassis of the switch.

Syslog Message

Cluster switch: %s has: %d power supplys and requires %d.

Parameters

switch_name (STRING): Cluster switch name
count (INT): The switch power supply count found.
required (INT): The switch power supply count required.

cluster.switch.pwr.fail

Severity

INFORMATIONAL

Description

The power supply on the switch is missing or is not operational.

Corrective Action

1) Ensure that the power supply mains supplying power to the switch is turned on. 2) Ensure that the power cord is connected to the power supply of the switch. 3) Contact technical support if the alert persists.

Syslog Message

Cluster switch: %s power supply: %s status: %s.

Parameters

> **switch_name** (STRING): Cluster switch name
> **pwr_supply_name** (STRING): The power supply name that is failing.
> **status** (STRING): The power supply status.

cluster.switch.pwr.non.operational

Severity

> INFORMATIONAL

Description

> The power supply on the switch is not operational.

Corrective Action

> 1) Ensure that the power supply unit is turned on through switch CLI. 2) Run diagnostics on the switch to check the operational status of the power supply unit (PSU). For instructions about how to run switch diagnostics, see the switch's configuration guide. 3) Contact technical support if the alert persists.

Syslog Message

> Cluster switch: %s power supply: %s status: %s.

Parameters

> **switch_name** (STRING): Cluster switch name
> **pwr_supply_name** (STRING): The power supply name that is failing.
> **status** (STRING): The power supply status.

cluster.switch.reboot

Severity

> INFORMATIONAL

Description

> The cluster switch has recently rebooted. Communication problems and cluster connectivity issues might occur.

Corrective Action

> 1) If the cluster switch was not rebooted on purpose, then check the switch to ensure that it is operating normally. 2) If errors persist, contact technical support for further assistance.

Syslog Message

> Cluster switch: %s rebooted at: %ld

Parameters

> **switch_name** (STRING): Cluster switch name
> **time** (INT): Last reported time before reboot.

cluster.switch.unsupported

Severity

> INFORMATIONAL

Description

Unsupported cluster switch is detected. Communication problems and cluster connectivity issues occur.

Corrective Action

Unsupported cluster switch found. Connect a supported cluster switch to cluster network.

Syslog Message

Cluster switch: %s model: %s not supported.

Parameters

switch_name (STRING): Cluster switch name
model (STRING): The switch model.

cluster.vol events

cluster.vol.create.success

Severity

NOTICE

Description

This message occurs when the volume required to store the system data needed for cluster-wide storage is created successfully after one or more attempts to create it failed. An event was previously raised for the failures.

Corrective Action

(None).

Syslog Message

Successfully created the volume for feature %s, after earlier attempts to create it failed.

Parameters

Feature (STRING): Feature using the cluster-wide storage.

cluster.vol.delete.failed

Severity

ALERT

Description

This message occurs when the volume that was used for cluster-wide storage cannot be deleted.

Corrective Action

Study the error message and take steps to rectify the problem. For example, if the error message indicates that the volume delete operation failed because the aggregate is offline, use the "aggr online -aggregate aggregate_name" command to bring it back online. If the error message does not indicate an obvious problem, contact NetApp technical support.

Syslog Message

Could not delete volume %s %d times on aggregate %s for feature %s. Most recent delete before this EMS failed with error message: "%s".

Parameters

Volume (STRING): Volume name.
AttemptsMade (INT): Count of failed attempts to delete the volume.
Aggregate (STRING): Aggregate name.
Feature (STRING): Feature using the cluster-wide storage.
ErrorMessage (STRING): Error message resulting from the delete failure at the time of EMS generation.

cluster.vol.delete.success

Severity

NOTICE

Description

This message occurs when the volume that was used for cluster-wide storage is deleted successfully after one or more attempts to delete it failed. An event was previously raised for the failures.

Corrective Action

(None).

Syslog Message

Successfully deleted volume %s on aggregate %s for feature %s, after earlier attempts to delete it failed.

Parameters

Volume (STRING): Volume name.
Aggregate (STRING): Aggregate name.
Feature (STRING): Feature using the cluster-wide storage.

cluster.vol.feature.inoper

Severity

ALERT

Description

This message occurs when it is detected that a feature relying on cluster-wide storage has been unable to create its storage. This condition leaves the feature inoperative.

Corrective Action

Look for any instances of the callhome.clus.vol.cre.fail event and follow any corrective action suggested there. For more information or assistance, contact NetApp technical support.

Syslog Message

Feature %s is inoperative due to failures creating the cluster-wide storage that it requires.

Parameters

Feature (STRING): Feature using the cluster-wide storage.

cluster.vol.feature.ok

Severity

INFORMATIONAL

Description

This message occurs when it is detected that a feature relying on cluster-wide storage has been able to create its storage after previously not being able to.

Corrective Action

(None).

Syslog Message

Feature %s degraded state has been cleared.

Parameters

Feature (STRING): Feature using the cluster-wide storage.

cluster.vol.on.same.aggr

Severity

ALERT

Description

This message occurs when both active and standby volumes used for cluster-wide storage are hosted on the same aggregate. This is typically due to there not being a suitable second aggregate to host the standby volume. In this configuration, the loss of the single aggregate would remove all cluster-wide storage for the feature, which would severely affect its functionality.

Corrective Action

Use the "volume show" command to identify the size of the specified volumes and on which aggregate they are hosted. Use the "storage aggregate show -fields mirror" command to identify if the aggregate that currently hosts the volumes is mirrored. Use the "storage aggregate show -fields mirror,size,usedsize,state" command to find an online aggregate with the same mirror attribute and with enough free space to host the standby volume. If a suitable aggregate cannot be found, then bring an offline aggregate back online using the "storage aggregate online" command or create a new aggregate using the "storage aggregate create" command. If creating a new aggregate, ensure that it is large enough to host the volume and that it has the same mirror attribute as the current aggregate. After a suitable aggregate has been identified or created, move the standby volume to this aggregate using the "volume move start" command. For more information or assistance, contact NetApp technical support.

Syslog Message

Both active and standby cluster-wide storage volumes (%s, %s) for %s feature are on the same aggregate.

Parameters

ActiveVolume (STRING): Active volume name.
StandbyVolume (STRING): Standby volume name.
Feature (STRING): Feature using the cluster-wide storage.

cmd events

cmd.result events

cmd.result.reboot

Severity

NOTICE

Description

This message occurs when the system reboots as a consequence of executing the specified command.

Corrective Action

(None).

Syslog Message

System rebooted for ('%s').

Parameters

cmd (STRING): Command for which the system rebooted.

cmd.sasadmin events

cmd.sasadmin.fw_update.fail

Severity

ERROR

Description

This message occurs when an adapter firmware update failure occurs.

Corrective Action

Verify that the firmware file is valid and try updating the firmware again. If the firmware update still fails, contact NetApp technical support.

Syslog Message

Adapter firmware update failed for adapter: %s.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.

cmd.shelfchk events

cmd.shelfchk.config.OK

Severity

INFORMATIONAL

Description

This event is generated while verifying disk shelf cabling and configuration. The operator indicates that the correct disk LEDs have illuminated.

Corrective Action

(None).

Syslog Message

Disk Configuration - No Errors Identified.

Parameters

(None).

cmd.shelfchk.config.warning

Severity

ERROR

Description

This event is generated while verifying disk shelf cabling and configuration on a channel. The operator has indicated that the intended set of disk LEDs is not illuminated.

Corrective Action

Verify that the adapters and storage shelves are cabled correctly.

Syslog Message

Disk Configuration - Failure Identified by Operator.

Parameters

(None).

cmd.start events

cmd.start.unsuccessful

Severity

ERROR

Description

This message occurs when the Counter Manager daemon (cmd) fails to start. The failure impacts the continuous archiving of performance data, which is used by technical support to troubleshoot system issues.

Corrective Action

The startup failure might be due to improper permissions for the '/mroot/etc/log' directory, or a full disk. Verify that the permissions of the '/mroot/etc/log' directory are 'rwxr-xr-x' by executing the 'fsecurity show /vol/vol0/etc/log' command from the nodeshell. Verify that the '/mroot' file system is not full. After fixing the cause of the failure, restart the cmd by running the 'spmctl -e -h cmd' command from the freebsd shell.

Syslog Message

The cmd startup failed.

Parameters

(None).

cmds events

cmds.config events

cmds.config.file.delete

Severity
    NOTICE

Description
    This message occurs when there is an error in deleting the specified file.

Corrective Action
    (None).

Syslog Message
    %s: Error in deleting %s: (%s).

Parameters
    funcname (STRING): Function name.
    fname (STRING): File name.
    errMessage (STRING): Error message.

cmds.software events

cmds.software.dirErr

Severity
    ERROR

Description
    This message occurs because the system cannot create the directory at the designated path.

Corrective Action
    (None).

Syslog Message
    Could not create directory %s: %s

Parameters
    path (STRING): Path where directory was supposed to be created.
    errorMsg (STRING): Error message.

cmds.software.installDone

Severity
    INFORMATIONAL

Description

This message occurs during software update and installation to inform you that the installation is complete.

Corrective Action

(None).

Syslog Message

Software: Installation of %s was completed.

Parameters

fileName (STRING): Name of the file to be updated/installed.

cmds.software.installNotDone

Severity

INFORMATIONAL

Description

This message occurs during software update and installation to inform you that installation failed.

Corrective Action

(None).

Syslog Message

Software: Installation of %s failed.

Parameters

fileName (STRING): Name of the file to be updated/installed.

cmds.sysconf events

cmds.sysconf.haltERR1

Severity

ALERT

Description

This message occurs to log the reason for system halt, before actually system is halted.

Corrective Action

(None).

Syslog Message

Halting system due to %d configuration problems.

Parameters

errCount (INT): Number of error which caused the system halt.

cmds.sysconf.haltERR2

Severity

ALERT

Description

This message occurs to log the reason for system halt, before actually system is halted.

Corrective Action

(None).

Syslog Message

Halting system due to a configuration problem.

Parameters

(None).

cmds.sysconf.inconstRule

Severity

INFORMATIONAL

Description

This message occurs because the rule for the card is applicable to both non_cluster_only and cluster_only systems, which is inconsistent.

Corrective Action

(None).

Syslog Message

Rule for model %s card %s is inconsistent: it applies both to cluster-only and non-cluster-only.

Parameters

model (STRING): Model ID.
card (STRING): Card ID.

cmds.sysconf.logErr

Severity

NOTICE

Description

This message occurs to log the error through syslog as an Error or Informational message depending upon the error count which is in this case greater than 0.

Corrective Action

(None).

Syslog Message

%s.

Parameters

errMsg (STRING): Error message to be logged.

cmds.sysconf.logInfo

Severity

INFORMATIONAL

Description

This message occurs to log the error through syslog as an Error or informational message depending upon the error count which is in this case less than or equal to 0.

Corrective Action

(None).

Syslog Message

%s.

Parameters

errMsg (STRING): Error message to be logged.

cmds.sysconf.perIntSmall

Severity

INFORMATIONAL

Description

This message occurs because the value for a periodic interval for internal testing is set too small, less than the minimum allowed.

Corrective Action

(None).

Syslog Message

options.sysconfig.periodic_interval of %d minutes is too small; using %d.

Parameters

valueUsed (INT): Value used for testing purpose.
defaultMinValue (INT): Minimum value allowed for a periodic interval.

cmds.sysconf.syslogger

Severity

NOTICE

Description

This message occurs to send the output to syslog rather than command prompt because the option '-l' with sysconfig command is not documented and is included in DEBUG builds only.

Corrective Action

(None).

Syslog Message

%s.

Parameters

message (STRING): 'sysconfig -l' Command output message.

cmpr events

cmpr.algo events

cmpr.algo.not.enabled

Severity

ALERT

Description

This message occurs when compression algorithm specified has not been enabled on the node.

Corrective Action

Contact technical support.

Syslog Message

Volume '%s' has '%s' compression enabled but the necessary bootarg(s) have not been set on the node.

Parameters

vol (STRING): Volume name.
comp_algo (STRING): Compression Algorithm.

cna events

cna.dump events

cna.dump

Severity

NOTICE

Description

This message occurs when an unexpected event or illegal condition is detected by the Converged Network Adapter (CNA) driver and the contents of the adapter's static RAM and memory must be dumped. After the dump, the adapter is reset and the contents of the dump are stored in a file in the /etc/log/ directory.

Corrective Action

No corrective action is needed; the adapter was reset.

Syslog Message

CNA coredump generated for CNA adapter CNA_%s, %s

Parameters

adapter (STRING): Name of the Converged Network Adapter.
reason (STRING): Reason for the dump.

cna.dump.saved

Severity

NOTICE

Description

This message occurs when an unexpected event or illegal condition is detected by the Converged Network Adapter (CNA) driver and the contents of the adapter's static RAM and memory are saved. The dump files are stored on the appliance's root volume in the /etc/log/ directory, with the following file name format: *[date]*[time].bin

Corrective Action

Send the dump file to technical support for analysis.

Syslog Message

A dump for CNA adapter CNA_%s was stored in %s

Parameters

adapter (STRING): Name of the CNA.
filename (STRING): Name of the file containing the dump.

cna.initfailed events

cna.initFailed

Severity

ALERT

Description

This message occurs when the converged network adapter (CNA) fails to initialize.

Corrective Action

Take corrective action based on the reason indicated for the failure.

Syslog Message

Initialization of adapter %s failed, reason: %s.

Parameters

adapter (STRING): Name of the Adapter.
reason (STRING): Reason for the failure.

cna.sfp events

cna.sfp.notSupported

Severity

ERROR

Description

This message occurs when the converged network adapter (CNA) detects an unsupported small form-factor Pluggable (SFP) in the adapter.

Corrective Action

Replace the unsupported SFP with a supported SFP.

Syslog Message

The SFP in adapter %s is not supported.

Parameters

adapter (STRING): Name of the adapter.

command events

command.complex events

command.complex.query

Severity

ERROR

Description

This message occurs when a custom role associated with a Storage Virtual Machine has a command directory with complex query.

Corrective Action

Remove the complex query. See BUG 915877 for more information.

Syslog Message

The %s command directory in %s role under Storage Virtual Machine %s, will not be available in merged role.

Parameters

vserver (STRING): Name of the Storage Virtual Machine.
rolename (STRING): Name of the role associated with the Virtual Storage Machine, with a command directory with a complex query.
cmddirname (STRING): Name of the command directory with complex query.

config events

config.atanotsupported events

config.ATAnotSupported

Severity

ERROR

Description

This message occurs when an ATA disk is found, but the appliance does not support it.

Corrective Action

Remove the ATA disks or upgrade your appliance to a model that supports ATA disks. Check your support provider's web site or knowledgebase for more information about appliance models that support ATA disks.

Syslog Message

ATA disks are not supported on this appliance. Disk %s is an ATA disk and should be removed.

Parameters

disk (STRING): Name of the disk.

config.badlocalswitch events

config.BadLocalSwitch

Severity

ALERT

Description

This message occurs when a disk is found to be attached to a switch, but there are also disks attached via local connections. Mixed switch-attached and direct-attached disks are an illegal configuration.

Corrective Action

Correct the cabling so that all disks are attached either directly or through switches. Consult the hardware cabling guides at the NetApp technical support site.

Syslog Message

Disk %s is attached to a switch. However, there are also local attached disks. This is an illegal configuration.

Parameters

disk (STRING): Name of the disk.

config.badpoolassign events

config.BadPoolAssign

Severity

ERROR

Description

This message occurs when SyncMirror® is in use and disks are assigned to different pools on the same interface or loop. This affects the fault isolation of the plexes in mirrored aggregates such that if a single interface fails, both plexes in an aggregate might fail or become degraded. If both plexes of an aggregate fail, the system enters multidisk panic.

Corrective Action

If the disk is a spare disk, use the "storage disk assign -pool [0|1]" command to change the pool assignment of the disks on the interface so that they are assigned to only one pool. If the disk is a file system disk, use the "storage disk replace" command to replace the disk from the incorrect pool with a spare disk from the correct pool.

Syslog Message

Disk %s is in %s and other disks on this loop/domain are in %s. Disks/interfaces need to be in separate pools for SyncMirror.

Parameters

disk (STRING): Name of the disk that fails.
disk_pool (STRING): Name of the pool that the disk is in.
other_pool (STRING): Name of the other pool.

config.badslot events

config.BadSlot

Severity

ALERT

Description

This message occurs when a disk is found to be attached to an invalid Host Adapter (HA) controller slot.

Corrective Action

Consult the NetApp technical support guides for the supported slots for adapters in the hardware platform. If the adapter is in a supported slot, contact NetApp technical support for further assistance.

Syslog Message

Disk %s is attached to an invalid HA slot. This is an illegal configuration.

Parameters

disk (STRING): Name of the disk.

config.badswitchlocal events

config.BadSwitchLocal

Severity

ALERT

Description

This message occurs when a disk is found to be attached locally, but there are also disks attached via switches. Mixed switch-attached and direct-attached disks are an illegal configuration.

Corrective Action

Correct the cabling so that all disks are attached either directly or through switches. Consult the hardware cabling guides at the NetApp technical support site.

Syslog Message

Disk %s is attached locally. However, there are also switch attached disks. This is an illegal configuration.

Parameters

disk (STRING): Name of the disk.

config.bridge events

config.bridge.adapter.invalid

Severity

ERROR

Description

This message occurs when an FC-to-SAS bridge is attached to an unsupported FC adapter port. Only QLogic® 4-Gb/s or 8-Gb/s adapters are supported.

Corrective Action

Attach the FC-to-SAS bridge to a supported FC adapter port on the controller.

Syslog Message

FC-to-SAS bridge %s S/N [%s] is attached to unsupported FC adapter port %s.

Parameters

bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
adapterName (STRING): Name of the associated FC host bus adapter.

config.bridge.extra.port

Severity

ERROR

Description

This message occurs when both FC ports of an FC-to-SAS bridge are attached to the same controller.

Corrective Action

Follow the defined Fabric or Stretch MetroCluster wiring guide.

Syslog Message

Both FC ports of FC-to-SAS bridge %s S/N [%s] are attached to this controller.

Parameters

bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.

config.bridge.fw.mismatch

Severity

ERROR

Description

This message occurs when two or more attached FC-to-SAS bridges are running different firmware revisions.

Corrective Action

For more information about downloading and installing updated firmware, check your support provider's web site or knowledgebase.

Syslog Message

Two or more %s FC-to-SAS bridges are running different firmware revisions.

Parameters

bridgeModel (STRING): Name of the FC-to-SAS bridge model.

config.bridge.SAS.miswired

Severity

ERROR

Description

This message occurs when the SAS disk shelves behind an FC-to-SAS bridge are not wired in the correct order.

Corrective Action

Follow the defined Fabric or Stretch MetroCluster wiring guide.

Syslog Message

The SAS disk shelves behind FC-to-SAS bridge %s S/N [%s] are not correctly wired.

Parameters

bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.

config.bridge.SAS2Domain

Severity

ERROR

Description

This message occurs when a disk is multipathed to one SAS domain; that is, both ports of the disk are visible from the same bridge FC port.

Corrective Action

Recable the disk shelf containing the specified disk, so that the two disk ports are in different SAS domains.

Syslog Message

Disk %s is multipathed to the same SAS domain. The two disk ports must be in different SAS domains.

Parameters

disk (STRING): Name of the disk.

config.bridge.unsupp.shelf

Severity

ALERT

Description

This message occurs when an FC-to-SAS bridge discovers a disk shelf that it does not support.

Corrective Action

Verify the bridge firmware is up-to-date with minimum FW rev required for support of this shelf type. If the bridge firmware supports the disk shelf but the error condition persists, remove the disk shelf.

Syslog Message

FC-to-SAS %s bridge with S/N: %s WWN: %s has unsupported %s shelf type attached.

Parameters

bridgeType (STRING): Type of FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the bridge.
bridgeWWN (STRING): World Wide Name of the bridge.
shelfType (STRING): Type of shelf.

config.cfobothabmodule events

config.CFObothABmodule

Severity

ALERT

Description

This message occurs when a disk shelf in a node is cabled for multipathing and the configuration does not support it. Multipathing means that the disk shelf is connected to one node through both disk shelf module A and module B. In HA configurations, multipathing is only supported if software disk ownership is being used and the storage shelf supports it.

Corrective Action

For a standard HA configuration, identify the miscabled disk shelf and attach either module A or module B to the partner node. For a shared storage or multipathed HA, assign disk ownership to the partner node by using the "disk assign" command in Maintenance mode.

Syslog Message

The disk shelf where disk %s resides is connected to this node through both disk shelf module A and module B; one of the modules must be connected to the partner node instead.

Parameters

> **disk** (STRING): Name of the disk that is cabled for multipathing.

config.cfomixedabmodule events

config.CFOmixedABmodule

Severity

> ALERT

Description

> This message occurs when a disk shelf attached to a node is miscabled so that one disk shelf's module A is connected to the next disk shelf's module B, or vice versa.

Corrective Action

> Identify the miscabled disk shelf, and then recable it. For FC shelves, ensure that each disk shelf's module A is connected Output to Input to the next disk shelf's module A, and that the disk shelf's module B is connected Output to Input to the next disk shelf's module B. For SAS shelves, connect the port identified with a circle on disk shelf module A to the port identified with a square on the next disk shelf's module A, and the "circle" port on module B to the next disk shelf's "square" port.

Syslog Message

> Host adapter %s has miscabled disk shelves; one disk shelf's module A is connected to the next disk shelf's module B, or vice versa.

Parameters

> **adapter** (STRING): Adapter that the miscabled disk shelf is on.

config.differentswitchport events

config.DifferentSwitchPort

Severity

> ALERT

Description

> This message occurs when the two ports of the disk are connected to different switch ports.

Corrective Action

> (None).

Syslog Message

> Disks on port %s:%d are also connected to port %s:%d. They need to be connected via the same port on different switches. This is an illegal configuration.

Parameters

> **switch1** (STRING): (None).
> **port1** (INT): (None).
> **switch2** (STRING): (None).
> **port2** (INT): (None).

config.diffpool events

config.DiffPool

Severity

ALERT

Description

This message occurs when a disk is found to be multipathed to two different mirroring pools. This configuration is illegal.

Corrective Action

See the NetApp technical support site for guidelines about assigning disks or array LUNs to SyncMirror® pools.

Syslog Message

Disk %s is dual-attached to two separate mirrored pools. This is an illegal configuration.

Parameters

disk (STRING): Name of the disk.

config.disknoswitch events

config.DiskNoSwitch

Severity

ALERT

Description

This message occurs when a disk is found to be attached to a switch, but it's not supported for a switch configuration.

Corrective Action

Ensure that the Disk Qualification Package (DQP) is up-to-date. Visit the NetApp technical support site for information on DQP files and installation. If the error persists for more than 10 minutes after installing an updated DQP file, remove the drive.

Syslog Message

Disk %s is not supported in a switch configuration.

Parameters

disk (STRING): Name of the disk.

config.exceededha events

config.ExceededHA

Severity

ERROR

Description

This message occurs when the number of local attached FC adapters exceeds the maximum allowed.

Corrective Action

(None).

Syslog Message

%d Fibre Channel disk adapters were detected and the maximum allowed is only %d.

Parameters

numHA (INT): (None).
maxHA (INT): (None).

config.fcsameloop events

config.FCSameLoop

Severity

ERROR

Description

This message occurs when a disk is multipathed to the same Fibre Channel loop.

Corrective Action

Recable the disk shelf containing the specified disk so that it is multipathed to different Fibre Channel loops.

Syslog Message

Disk %s is attached to the same Fibre Channel loop. The disk should be multipathed to different loops.

Parameters

disk (STRING): Name of the disk.

config.habadbank1 events

config.HABadBank1

Severity

ALERT

Description

This message occurs when a local host adapter is connected to a different switch bank (on ports 8-15) than other adapters on this controller, which are connected to ports 0-7. This is an illegal configuration.

Corrective Action

Connect all of the adapters of this controller to the same bank of switch ports.

Syslog Message

Other local host adapters are connected to Switch bank 1 (ports 0-7). Host adapter %s is connected to Switch bank 2 (ports 8-15). This is an illegal configuration.

Parameters

ha (STRING): Name of the host adapter.

config.habadbank2 events

config.HABadBank2

Severity

ALERT

Description

This message occurs when a local host adapter is connected to a different switch bank (on ports 0-7) than other adapters on this controller, which are connected to ports 8-15. This is an illegal configuration.

Corrective Action

Connect all of the adapters of this controller to the same bank of switch ports.

Syslog Message

Other local host adapters are connected to Switch bank 2 (ports 8-15). Host adapter %s is connected to Switch bank 1 (ports 0-7). This is an illegal configuration.

Parameters

ha (STRING): Name of the host adapter.

config.habadremote events

config.HABadRemote

Severity

ALERT

Description

This message occurs when a remote host adapter is connected to the wrong switch bank.

Corrective Action

Examine the cabling to determine which switch bank the local controller host adapters are attached to (the lower-numbered ports or the higher-numbered ports.) Recable the HA of the remote controller to be in the other bank of switch ports.

Syslog Message

A remote host adapter is connected to the same switch bank as the local host adapters. This is an illegal configuration.

Parameters

(None).

config.invalid events

config.invalid.PortToPort

Severity

ERROR

Description

This message occurs when a SAS (Serial Attached SCSI) port is attached to another SAS port. This is not a valid connection.

Corrective Action

Check and correct the cabling; connecting two SAS ports together in this configuration is not permitted.

Syslog Message

SAS adapter "%s" is attached to another SAS adapter.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.

config.localswitch events

config.localswitch

Severity

EMERGENCY

Description

This message occurs when a disk is found attached via both local connection and a switch. This is permitted in debug. The system will be halted in non-debug.

Corrective Action

(None).

Syslog Message

Disk %s is attached via a local connection and a switch. This is an illegal configuration.

Parameters

disk (STRING): Name of the disk.

config.mirroring events

config.mirroring.failure

Severity

ERROR

Description

This message occurs when the name-service configuration is not replicated in the node. The out-of-sync configuration file can impact access during data access attempts.

Corrective Action

Use the "vserver services name-service unix-user load-from-uri" or "vserver services name-service unix-group load-from-uri" command to reload the configuration file. Use the (privilege: advanced) "vserver services name-service unix-user file status" or "vserver services name-service unix-group file status" command to verify that the configuration file was successfully loaded and corresponding database was successfully generated.

Syslog Message

Failed getting the latest %s file for Vserver %s on node %s with error %s.

Parameters

configuration (STRING): Name of the configuration.
vserver_name (STRING): Name of the vserver, for which the configuration was not successfully replicated.
node_name (STRING): Name of the node on which configuration failed to replicate.
error_string (STRING): Error encountered while extracting package.

config.mirrornotmultipath events

config.MirrorNotMultiPath

Severity

ERROR

Description

This message occurs when a disk is not multipathed but synchronous mirroring is enabled.

Corrective Action

Multipath the disk shelf stack by also attaching it to a different host adapter via the other shelf module in each disk shelf in the stack.

Syslog Message

Disk %s and other disks on this loop/domain are not multipathed and should be for synchronous mirroring configuration.

Parameters

disk (STRING): Name of the disk.

config.mirrorscsidisk events

config.MirrorSCSIdisk

Severity

ALERT

Description

This message occurs when a SCSI disk is found in a SyncMirror® configuration.

Corrective Action

Unconfigure SyncMirror on the aggregate that contains the SCSI disk. Configure SyncMirror using aggregates that do not contain SCSI disks.

Disk %s is a SCSI disk, and is illegal in a SyncMirror configuration.

Parameters

disk (STRING): Name of the SCSI disk that was found.

config.mixedabmodule events

config.mixedABmodule

Severity

ERROR

Description

This message occurs when the disk shelf stack is miscabled so that one disk shelf's module A is connected to the next disk shelf's module B, or vice versa.

Corrective Action

Identify the miscabled disk shelf, and then recable it. For fibre channel shelves, ensure that each disk shelf's module A is connected Output to Input to the next disk shelf's module A, and that the disk shelf's module B is connected Output to Input to the next disk shelf's module B. For SAS shelves, connect the port identified with a circle on disk shelf module A to the port identified with a square on the next disk shelf's module A, and the "circle" port on module B to the next disk shelf's "square" port on disk shelf module B.

Syslog Message

Host adapter %s has miscabled disk shelves; one disk shelf's module A is connected to the next disk shelf's module B, or vice versa. This is not a recommended configuration.

Parameters

adapter (STRING): Name of the adapter on the miscabled disk shelf stack.

config.more2path events

config.More2Path

Severity

ERROR

Description

This message occurs when a disk is found to have more than two connections to the storage controller.

Corrective Action

Remove connections to the disk so there are only two.

Syslog Message

Disk %s and other disks on this loop/domain are attached with more than two connections. Only two connections are supported.

Parameters

disk (STRING): Name of the disk.

config.move events

config.move.fail.lost.lif.address

Severity

ERROR

Description

This message occurs when a logical interface (LIF) migration fails in such a way that there might have been a resulting internal loss of the LIF IP address.

Corrective Action

Use the "network interface modify" command to toggle the LIF's "-status-admin" parameter down and then up. This reinstalls the LIF address in the network stack.

Syslog Message

LIF migration for IP address %s from port %s to port %s failed because of an internal error: %s.

Parameters

address (STRING): LIF IPv4 or IPv6 address being moved.
migrateFromPort (STRING): Name of the migrate-from port.
migrateToPort (STRING): Name of the migrate-to port.
internalError (STRING): Internal error message.

config.multipath events

config.MultiPath

Severity

INFORMATIONAL

Description

This message occurs when the filer configuration is configured for High Availability (HA) multipathing.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

config.noadisk events

config.noAdisk

Severity

ALERT

Description

This message occurs when the local node in an HA configuration is connected to its disk shelves through the shelf B module instead of the shelf A module. In an HA configuration, the local node must be connected to its disk shelves through the shelf A module, and the partner node must be connected to those disk shelves through the shelf B module.

Corrective Action

For a standard HA configuration, identify and connect the local node's disk shelves to the local node using the shelf's module A. Then connect those disk shelves to the partner node using the shelf module B. For a shared storage or multipathed HA, assign disk ownership to the local and partner nodes by using the "disk assign" command in Maintenance mode.

Syslog Message

All disk shelves are attached to the local node through shelf module B. Some of these shelves should be attached via shelf module A.

Parameters

(None).

config.nobconnect events

config.noBconnect

Severity

EMERGENCY

Description

This message occurs when the local node in an HA configuration has no access to its partner node's disk shelves because the partner node's shelves are not connected to the local node through the shelf's module B.

Corrective Action

For an HA configuration that uses software disk ownership, verify that both the local and partner nodes can access the disks.

Syslog Message

The local node cannot access the partner node's disk shelves because the partner node's shelves are not connected to the local node through their shelf module B.

Parameters

(None).

config.nocheck events

config.NoCheck

Severity

NOTICE

Description

This message occurs when the system should be halting, but it cannot because the "no-config-check? " environment variable is set to true.

Corrective Action

(None).

Syslog Message

This is an illegal configuration. However the Filer is not halting due to no-config-check? being set to true.

Parameters

(None).

config.nomultipath events

config.NoMultiPath

Severity

ALERT

Description

This message occurs when a disk is found with multiple paths and it does not support them.

Corrective Action

Remove the second path from the disk shelf.

Syslog Message

Disk %s cannot be multipathed.

Parameters

disk (STRING): Name of the disk that was found.

config.nopartnerdisks events

config.noPartnerDisks

Severity

ERROR

Description

This message occurs in a High-Availablity (HA> configuration when there are no partner disks.

Corrective Action

Ensure that both nodes of the HA pair are cabled so they have access to all the disks. Check that the adapter interface to the disk shelves is up using the "storage adapter show" command. Ensure that any switches are correctly zoned for disk visibility by the nodes.

Syslog Message

No disks were detected for the partner; this node cannot perform takeover correctly.

Parameters

(None).

config.nopartnerluns events

config.noPartnerLUNs

Severity

EMERGENCY

Description

This message occurs in a High-Availablity (HA) configuration with array LUNS when there is no attachment to both local and partner LUNs.

Corrective Action

Ensure that both nodes of the HA pair are cabled so they have access to all of the LUNs. Check that the adapter interface to the array is up by using the "storage adapter show" command. Ensure that any switches are correctly zoned for LUN visibility by the nodes. Verify that the array or bridge is correctly exporting its LUNs on the proper interface.

Syslog Message

No LUNs were detected for the partner; this node cannot perform takeover correctly.

Parameters

(None).

config.noswitchcount events

config.NoSwitchCount

Severity

NOTICE

Description

This message occurs when an attempt to obtain the switch port count fails because it does not exist.

Corrective Action

(None).

Syslog Message

Unable to obtain switch port count information for attached switches.

Parameters

(None).

config.noswitchcountfordisk events

config.NoSwitchCountForDisk

Severity

NOTICE

Description

This message occurs when an attempt to obtain the switch port count fails because it does not exist.

Corrective Action

(None).

Syslog Message

Unable to obtain switch port count information for disk %s.

Parameters

disk (STRING): Name of the disk.

config.notmultipath events

config.NotMultiPath

Severity

ERROR

Description

This message occurs when a disk is not multipathed.

Corrective Action

Multipath the disk shelf stack by also attaching it to a different host adapter via the other shelf module in each disk shelf in the stack.

Syslog Message

Disk %s and other disks on this loop/domain are not multipathed and should be for improved availability.

Parameters

disk (STRING): Name of the disk.

config.oneswitch events

config.OneSwitch

Severity

ALERT

Description

This message occurs when the disk is only connected to one switch.

Corrective Action

(None).

Syslog Message

Disk %s and other disks on this loop are only connected to one switch. For availability reasons, it should be connected to two separate switches.

Parameters

disk (STRING): name of the disk

config.pvlan events

config.pvlan.created

Severity

NOTICE

Description

This message occurs when a pseudo-VLAN port is created.

Corrective Action

(None).

Syslog Message

Pseudo-VLAN "%s" was created on the network interface "%s".

Parameters

pvlanName (STRING): Pseudo-VLAN name.
interface (STRING): Interface name that the pseudo-VLAN will be on.

config.pvlan.deleted

Severity

NOTICE

Description

This message occurs when a pseudo-VLAN port is deleted.

Corrective Action

(None).

Syslog Message

Pseudo-VLAN "%s" was deleted from the network interface "%s".

Parameters

pvlanName (STRING): Pseudo-VLAN name.
interface (STRING): Interface name that the pseudo-VLAN is on.

config.repl events

config.repl.bypass.disabled

Severity

NOTICE

Description

This message occurs when the configuration replication bypass has been disabled. Configuration replication to any partner clusters will now resume.

Corrective Action

(None).

Syslog Message

The configuration replication bypass has been disabled.

Parameters

(None).

config.repl.bypass.enabled

Severity

NOTICE

Description

This message occurs when the configuration replication bypass has been enabled. Configuration replication to any partner clusters will cease until the bypass is disabled using the 'debug crs replication-bypass disable' command.

Corrective Action

(None).

Syslog Message

The configuration replication bypass has been enabled.

Parameters

(None).

config.sameha events

config.sameHA

Severity

ERROR

Description

This message occurs when a disk is multipathed to the same host adapter. The second disk interface should be attached to a different host adapter.

Corrective Action

Move one of the connections attaching the disk shelf to a different host adapter.

Syslog Message

Disk %s and other disks attached to the same port are dual-attached to the same adapter. For improved availability you should dual-attach them to separate adapters.

Parameters

disk (STRING): Name of the disk.

config.sameslot events

config.sameSlot

Severity

ERROR

Description

This message occurs when a SAS disk is multipathed to host adapters in the same controller slot. The second disk interface should be attached to a host adapter in a different slot.

Corrective Action

Move one of the connections attaching the disk shelf to a host adapter in a different slot.

Syslog Message

Disk %s and other disks attached to the same port are dual-attached to adapters in the same slot . For improved availability you should dual-attach them to adapters in separate slots.

Parameters

disk (STRING): Name of the disk.

config.sameswitch events

config.SameSwitch

Severity

ALERT

Description

This message occurs when both ports of a disk is found to be attached to the same switch.

Corrective Action

(None).

Syslog Message

Disks on port %s:%d are also connected to the same switch at port %s:%d. This is an illegal configuration.

Parameters

switch1 (STRING): name of the switch
port1 (INT): port number of 1st connection.
switch2 (STRING): (None).
port2 (INT): port number of 2nd connection.

config.sameswitchwarn events

config.SameSwitchWarn

Severity

ALERT

Description

This message occurs when both ports of a disk are found to be attached to the same switch. Higher availability is achieved by cabling disk ports to different switches.

Corrective Action

Recable one of the indicated ports to a different switch.

Syslog Message

Disks on port %s:%d are also connected to the same switch at port %s:%d. For availability reasons, they should be connected to two separate switches.

Parameters

switch1 (STRING): Name of the switch.
port1 (INT): Port number of first connection.
switch2 (STRING): (None).
port2 (INT): Port number of second connection.

config.sas2domain events

config.SAS2Domain

Severity

ERROR

Description

This message occurs when a disk is multipathed to one SAS domain; that is, both ports of the disk are visible from the same HBA port.

Corrective Action

Recable the disk shelf containing the specified disk, so that the two disk ports are in different SAS domains.

Syslog Message

Disk %s is multipathed to the same SAS domain. The two disk ports must be in different SAS domains.

Parameters

disk (STRING): Name of the disk.

config.scsidisk events

config.SCSIdisk

Severity

NOTICE

Description

This message occurs when a SCSI disk is found in a CFO configuration.

Corrective Action

(None).

Syslog Message

Disk %s is a SCSI disk, and is illegal in a Clustered Failover configuration.

Parameters

disk (STRING): Name of the SCSI disk which was found.

configbr events

configbr.backupcompleted events

configbr.backupCompleted

Severity

NOTICE

Description

This message occurs when a scheduled configuration backup is successfully created.

Corrective Action

(None).

Syslog Message

Scheduled configuration backup %s was created successfully.

Parameters

backup (STRING): Backup file.

configbr.backupfailed events

configbr.backupFailed

Severity

ALERT

Description

This message occurs when when the configuration backup cannot be created.

Corrective Action

Verify the root volume file system is available and has enough space to create a backup with the "volume show" command or adjust the size of the memory-backed scratch space using the "configuration backup settings modify" command (privilege: diagnostic). If the scheduled backup could not be created, create a backup file manually with the (privilege: advanced) "system configuration backup create" command, find the remote URL for uploading with the (privilege: advanced) "system configuration backup settings show -fields destination" command, and upload the backup with the (privilege: advanced) "system configuration backup upload" command.

Syslog Message

The %s configuration backup %s cannot be created. Error: '%s'.

Parameters

type (STRING): Type of backup, either cluster or local.
backup (STRING): Backup file.
reason (STRING): Reason for the error.

configbr.deletefailed events

configbr.deleteFailed

Severity

ERROR

Description

This message occurs when an old configuration backup cannot be deleted.

Corrective Action

Ensure that the node is accessible and healthy. If necessary, delete the backup manually with the (privilege: advanced) "system configuration backup delete" command.

Syslog Message

The %s configuration backup %s on node %s cannot be deleted. Error: '%s'.

Parameters

type (STRING): Type of backup, either cluster or local.
backup (STRING): Backup file.
node (STRING): Node on which the backup file exists.
reason (STRING): Reason for the error.

configbr.distributefailed events

configbr.distributeFailed

Severity

ERROR

Description

This message occurs when a configuration backup cannot be distributed to another node in the cluster.

Corrective Action

Ensure that the destination node is accessible and healthy. If necessary, upload the backup file to the remote URL to increase the availability of the backup file with the (privilege: advanced) "system configuration backup upload" command.

Syslog Message

Configuration backup %s cannot be distributed to node %s. Error: '%s'.

Parameters

backup (STRING): Backup file.
destination_node (STRING): Destination node to which the backup file failed to be distributed.
reason (STRING): Reason for the error.

configbr.initfailed events

configbr.initFailed

Severity

ERROR

Description

This message occurs when the configuration backup and restore feature cannot initialize the necessary software components. Given time, the system might recover by retrying the initialization.

Corrective Action

Verify the root volume file system is available and has enough space to create a backup with the "volume show" command. If replicated database entries could not be populated, wait five minutes and verify that the backup schedules are listed with the (privilege: advanced) "system configuration backup settings show -instance" command. If the backup jobs could not be created, wait five minutes and verify that backup jobs are displayed for each schedule with the "job show" command.

Syslog Message

Configuration backup and restore feature could not be initialized. Error: '%s'.

Parameters

reason (STRING): Reason for the initialization failure.

configbr.interror events

configbr.intError

Severity

ERROR

Description

This message occurs when an attempt to create a configuration backup file encountered an internal software error.

Corrective Action

Create the configuration backup file manually by using the (privilege: advanced) "system configuration backup create" command.

Syslog Message

Configuration backup and restore detected an internal software error. Error: '%s'.

Parameters

error (STRING): Internal software error.

configbr.nodesturl events

configbr.noDestURL

Severity

ERROR

Description

This message occurs when the cluster backup is saved on only one node and no offsite configuration backup destination URL is configured.

Corrective Action

Configure an offsite configuration backup destination URL as soon as possible, using the commands "system configuration backup settings modify -destination <destination-url> -username <username-on-destination-url>" and "system configuration backup settings set-password".

Syslog Message

Cluster backup is saved on only one node and no offsite configuration backup destination URL is configured.

Parameters

(None).

configbr.snapshotdelfailed events

configbr.snapshotDelFailed

Severity

ERROR

Description

This message occurs when a Snapshot(tm) copy on the root volume cannot be deleted. The Snapshot copy was created during a configuration backup.

Corrective Action

Ensure that the root volume file system is available with the "volume show" command.

Syslog Message

Snapshot copy %s on the root volume cannot be deleted on node %s. Error: '%s'.

Parameters

name (STRING): Name of the Snapshot copy.
node (STRING): Node on which the Snapshot copy was created.
reason (STRING): Reason for the error.

configbr.unpubfailed events

configbr.unpubFailed

Severity

ERROR

Description

This message occurs when the configuration backup and restore feature fails to unpublish a package by using the file replication service. The configuration backup process creates file packages and registers them with the file replication service, which stores the package in the root file system. When the configuration backup process is complete, it cleans up these files by unpublishing the package by using the file

replication service. When unpublishing fails, these files are not be cleaned up and remain in the root file system. This message does not indicate a failure in the configuration backup process, which continues despite the event. You can monitor the status of an ongoing configuration backup process by using the "job show" command. The completed configuration backup files are visible when you run the "system configuration backup show" command.

Corrective Action

Obtain diagnostic privilege and view the file replication packages by using the "system services replication show" command. Unpublish the file replication packages by issuing the "system services replication unpublish" command, for which you also need diagnostic privilege. Check the "cluster ring show" command to ensure that the node is in quorum; management quorum is required for the unpublish command to succeed. Do not take these actions while an active configuration backup process is running.

Syslog Message

Configuration backup and restore failed to unpublish package %s; Error: '%s'.

Parameters

package_name (STRING): Name of the package.
reason (STRING): Reason for the unpublishing failure.

configbr.uploadfailed events

configbr.uploadFailed

Severity

ERROR

Description

This message occurs when the configuration backup cannot be uploaded to the destination URL.

Corrective Action

Ensure that the destination URL is reachable, the protocol in the URL is supported, and the user credentials are valid.

Syslog Message

Configuration backup file %s cannot be uploaded to the destination URL %s. Error: '%s'.

Parameters

backup (STRING): Backup file.
destination (STRING): Destination URL.
reason (STRING): Reason for the upload failure.

connectx events

connectx.cmdinterface events

connectx.cmdInterface.hung

Severity

NOTICE

Description

This message occurs when the command interface of ConnectX HA interconnect hardware is temporarily hung. If the command interface fails to recover, the HA interconnect goes down.

Corrective Action

Typically, the command interface recovers after a few seconds. If not, an AutoSupport message is generated when the HA interconnect goes down.

Syslog Message

HA interconnect ConnectX hardware command interface is temporarily hung.

Parameters

(None).

connectx.fatalerror events

connectx.fatalError

Severity

ERROR

Description

This message occurs when a fatal error is polled from the ConnectX(tm) InfiniBand® adapter. Controller failover will be disabled.

Corrective Action

Contact NetApp technical support. ConnectX registers have been dumped to the /etc/mlxlog/ConnectX_regdump file.

Syslog Message

HA interconnect HBA failure, ConnectX fatal error was polled.

Parameters

(None).

connectx.ibcabledetected events

connectx.IbCableDetected

Severity

INFORMATIONAL

Description

This message occurs when an InfiniBand cable is detected on the InfiniBand port.

Corrective Action

(None).

Syslog Message

Detected %s of length %dM on InfiniBand port %s.

Parameters

cable_type (STRING): InfiniBand cable type.
cable_length (INT): Length of the InfiniBand cable in meters.
port_str (STRING): InfiniBand port in which the cable is plugged.

connectx.iblinkretrainnotreqd events

connectx.IBLinkRetrainNotReqd

Severity

INFORMATIONAL

Description

This message occurs when the software detects that the previous InfiniBand link training was successful.

Corrective Action

(None).

Syslog Message

InfiniBand Link training was successful for ConnectX in slot %d, port %d.

Parameters

pcie_slot (INT): PCIe slot in which ConnectX is present.
port_num (INT): Port number where the success was detected.

connectx.iblinkretrainreqd events

connectx.IBLinkRetrainReqd

Severity

NOTICE

Description

This message occurs when the software detects that the previous InfiniBand link training was unsuccessful.

Corrective Action

(None).

Syslog Message

InfiniBand Link training failed for ConnectX in slot %d, port %d. Link Retraining Request status %d.

Parameters

pcie_slot (INT): PCIe slot in which ConnectX is present.
port_num (INT): Port number where the issue was detected.
status (INT): Status of the link retraining request.

connectx.ibqsfpdumpctrl events

connectx.IbQsfpDumpCtrl

Severity

ERROR

Description

This message occurs when InfiniBand retimer programming fails due to a quad small form-factor pluggable (QSFP) transceiver register dump failure, causing the control registers of QSFP to be dumped.

Corrective Action

Automatic retry of InfiniBand retimer programming will be done and an AutoSupport(tm) message will be generated if two retries fail.

Syslog Message

InfiniBand retimer programming failed on port %s due to %s. Dumping registers: control 0x%0x, data 0x%0x, timeout 0x%0x, clock 0x%0x.

Parameters

port_str (STRING): InfiniBand port in which the cable is plugged.
reason (STRING): Reason for the failure of InfiniBand retimer programming.
ctrlreg (INTHEX): Contents of the QSFP control register in hexadecimal notation.
datareg (INTHEX): Contents of the QSFP data register in hexadecimal notation.
timeoutreg (INTHEX): Contents of the QSFP timeout register in hexadecimal notation.
clockreg (INTHEX): Contents of the QSFP clock register in hexadecimal notation.

connectx.ibqsfpdumpdata events

connectx.IbQsfpDumpData

Severity

ERROR

Description

This message occurs when InfiniBand retimer programming fails due to a quad small form-factor pluggable (QSFP) transceiver parse error, and 128 bytes of QSFP data are dumped.

Corrective Action

Automatic retry of InfiniBand retimer programming will be done and an AutoSupport(tm) message will be generated if two retries fail.

Syslog Message

InfiniBand retimer programming failed on port %s due to %s. Dumping registers: %s.

Parameters

port_str (STRING): InfiniBand port in which the cable is plugged.
reason (STRING): Reason for the failure of InfiniBand retimer programming.
qsfp_data (STRING): Contents of QSFP data registers from offset 128 to 256 in hexadecimal notation.

connectx.ibretimerfailcount events

connectx.IbRetimerFailCount

Severity

ERROR

Description

This message occurs when InfiniBand retimer programming fails due to one of the following reasons: InfiniBand device not found, GPIO read failure or retimer chip failure.

Corrective Action

Automatic retry of InfiniBand retimer programming will be done and an AutoSupport(tm) message will be generated if two retries fail.

Syslog Message

InfiniBand retimer programming failed on port %s due to %s.

Parameters

port_str (STRING): InfiniBand port in which the cable is plugged.
reason (STRING): Reason for the failure of InfiniBand retimer programming.

connectx.ibretimerprogrmpass events

connectx.IbRetimerProgrmPass

Severity

INFORMATIONAL

Description

This message occurs when InfiniBand retimer programming is succesfully completed after the system detects that a cable is plugged in.

Corrective Action

(None).

Syslog Message

InfiniBand retimer programming was successful on port %s.

Parameters

port_str (STRING): InfiniBand port in which the cable is plugged.

connectx.ibretimerskipprogrm events

connectx.IbRetimerSkipProgrm

Severity

INFORMATIONAL

Description

This message occurs when InfiniBand retimer programming is skipped after the system detects that a cable is plugged in, because there was no change in the cable's type and length.

Corrective Action

(None).

Syslog Message

InfiniBand retimer programming was skipped on port %s for %s cable.

Parameters

port_str (STRING): InfiniBand port in which the cable is plugged.
cable_type (STRING): InfiniBand cable type.

connectx.ibunsupportcable events

connectx.IbUnsupportCable

Severity

ERROR

Description

This message occurs when an unsupported InfiniBand cable is detected on the InfiniBand port.

Corrective Action

Unplug the unsupported InfiniBand cable and plug in a supported cable. Search the support site "Hardware Universe" for information about supported InfiniBand cables.

Syslog Message

Detected unsupported %s on InfiniBand port %s.

Parameters

cable_type (STRING): InfiniBand cable type.
port_str (STRING): InfiniBand port in which the cable is plugged.

connectx.portdisabled events

connectx.portDisabled

Severity

ALERT

Description

This message occurs when the HA interconnect port experiences persistent node advertisement send timeouts. Port reinitialization does not correct the problem. The port is disabled.

Corrective Action

Reboot the controller. Contact NetApp technical support if the problem persists.

Syslog Message

Node advertisement send timed out for the ConnectX device in slot %d, port %d. The port is disabled. Device registers have been dumped to the /etc/mlxlog/ConnectX_regdump file.

Parameters

phys_slot (INT): Physical slot in which ConnectX is present.
port_num (INT): Port number that is disabled.

copy events

copy.dst events

copy.dst.raid.convert.fail

Severity

NOTICE

Description

This event is issued when a SnapMirror or aggregate copy operation attempts to update a flexible volume RAID block on the destination but is unable to do so.

Corrective Action

Verify the source and destination have flexible volumes with compatible versions.

Syslog Message

Unable to convert volume RAID block %llu during copy transfer.

Parameters

block (LONGINT): Block with the error

coredump events

coredump.all events

coredump.all.disks.used

Severity

ERROR

Description

All disks available to coredump already contain unsaved cores.

Corrective Action

There are three choices. First, add more disks to the system. Second, delete any unsaved cores by running "savecore -k". Third, save any unsaved cores by running "savecore". It may be necessary to run "savecore -f" to save the cores, if previous attempts to save these cores have failed.

Syslog Message

No disks available for dumpcore

Parameters

(None).

coredump.compress events

coredump.compress.failed

Severity

ERROR

Description

An error was encountered while compressing data for the coredump. This core will be deleted.

Corrective Action

(None).

Syslog Message

Error compressing core data: %s

Parameters

msg (STRING): The error message

coredump.compression events

coredump.compression.details

Severity

INFORMATIONAL

Description

This message occurs when a compressed kernel core is generated. Details about compression are reported.

Corrective Action

(None).

Syslog Message

%s, compression time %llu msec, compression count %llu, bytes before compression %llu, bytes after compression %llu, compression ratio %llu%%, compression bandwidth %llu MB/s, total compression time %llu msec, all-zero chunk count %llu.

Parameters

type (STRING): Type of dump. Possible types are compressed core, compressed spraycore, spraycore and sparecore.
compressTime (LONGINT): Compression time, in milliseconds.
compressCount (LONGINT): Number of compressions.
compressBytesIn (LONGINT): Number of bytes before compression.
compressBytesOut (LONGINT): Number of bytes after compression.
compressRatio (LONGINT): Compression ratio expressed as a percentage.
compressBandwidth (LONGINT): Compression bandwidth, in MBps.
totalCompressTime (LONGINT): Total compression time, in milliseconds.
allZeroChunks (LONGINT): Number of all-zero chunks.

coredump.coreid events

coredump.coreid.not.found

Severity

INFORMATIONAL

Description

Could not find the specified core

Corrective Action

Double-check the core id, and try again.

Syslog Message

Core %d could not be found

Parameters

coreid (INT): The core id that could not be found

coredump.delete events

coredump.delete.denied

Severity

INFORMATIONAL

Description

This message occurs when a requested coredump delete cannot occur because an aggregate relocation or a takeover is in progress. The system cannot delete a core while either an aggregate relocation or a takeover is in progress.

Corrective Action

Retry the coredump delete after aggregate relocation or takeover completes.

Syslog Message

Coredump delete disallowed because an aggregate relocation or a takeover in progress.

Parameters

(None).

coredump.disk events

coredump.disk.write.details

Severity

INFORMATIONAL

Description

This message occurs when a kernel core is written to disk. Details about disk operations are reported.

Corrective Action

(None).

Syslog Message

%s, disk write time %llu msec, disk write count %llu, disk write bytes %llu, disk write bandwidth %llu MB/s.

Parameters

type (STRING): Type of dump. Possible types are compressed core, compressed spraycore, spraycore and sparecore.
writeTime (LONGINT): Disk write time, in milliseconds.
writeCount (LONGINT): Number of disk writes.
writeBytes (LONGINT): Number of bytes written to disk.
writeBandwidth (LONGINT): Disk write bandwidth, in MBps.

coredump.dr events

coredump.dr.dump.not.started

Severity

ERROR

Description

This message occurs when coredump subsystem detects that disaster recovery (DR) partner sparecore dump did not start.

Corrective Action

Log in to service processor and power cycle the DR partner that may not have started dumping core.

Syslog Message

DR partner sparecore dump failed to start.

Parameters

(None).

coredump.dr.spare.abort

Severity

INFORMATIONAL

Description

This message occurs when coredump subsystem attempts to abort any sparecore dump that might be in progress on disaster recovery (DR) partner. This process can take up to 60 seconds. During this time, other coredump operations are not serviced.

Corrective Action

(None).

Syslog Message

Pausing to abort DR partner sparecore dump on %s because %s.

Parameters

diskuid (STRING): UID of DR partner sparecore dump disk.
reason (STRING): Reason for aborting the DR partner sparecore dump.

coredump.dr.spare.noAbort

Severity

ERROR

Description

This message occurs when coredump subsystem is unable to abort any sparecore dump that might be in progress on disaster recovery (DR) partner.

Corrective Action

Log in to service processor and power cycle the DR partner that is still dumping core.

Syslog Message

DR partner sparecore dump could not be aborted on disk %s because %s.

Parameters

diskuid (STRING): UID of DR partner sparecore dump disk.
reason (STRING): Reason for abort failure.

coredump.dump events

coredump.dump.abort

Severity

ERROR

Description

This message occurs when there is an unsaved core on the dump device. The abort prevents a new crash from overwriting the original dump core, which is expected to contain more interesting information for analysis.

Corrective Action

If the default behavior is not desired, then set the boot option 'save-latest-core?' to true.

Syslog Message

Dump is aborted because a core in the dump device is not saved yet.

Parameters

(None).

coredump.dump.disk.failed

Severity

NOTICE

Description

This message occurs once for each core disk that has read or write errors while dumping the core. Each disk is marked as failed, so further writes to the disks are dropped. Dumpcore tries to recover from this error, and continue dumping the core.

Corrective Action

(None).

Syslog Message

Disk %s had %u read and %u write error(s) during dumpcore.

Parameters

disk (STRING): Name of this core disk marked failed with read or write errors.
readErrorCount (INT): Number of read errors seen on this core disk.
writeErrorCount (INT): Number of write errors seen on this core disk.

coredump.dump.disk_failed.count

Severity

ERROR

Description

During the last dumpcore attempt, disk write errors are ignored, and dumpcore continues. In this case, too many disks failed during the last dump attempt for savecore to create a core file. The core will be deleted, and no core will be available from this panic.

Corrective Action

(None).

Syslog Message

%d of %d disks failed during dumpcore

Parameters

failed (INT): Number of failed disks
total (INT): Number of disks used

coredump.dump.disks.count

Severity

ERROR

Description

This message occurs when the system fails to write a coredump due to lack of disk space.

Corrective Action

Disk space needed for a coredump can be reduced by enabling sparse cores, which is the default setting. Verify that sparse cores are enabled by using the "system node coredump config show" command. If not, enable them by using the "system node coredump modify -node local -sparse-enabled true" command. If there is still not enough disk space to write a coredump, add a spare disk that is at least 0.6 times the sum of primary memory size and NVRAM memory size. You can obtain sizes of primary memory and NVRAM memory by using the "run local sysconfig" command and reading entries for system board and NVRAM.

Syslog Message

Not enough disks to write core dump.

Parameters

(None).

coredump.dump.dont

Severity

INFORMATIONAL

Description

This message occurs when a core dump is not performed because the system was configured to not dump cores or dump is disabled in the code path that caused the system to panic. Any of the following configuration methods can disable coredump: - Environment variable "dont-dump-core?" is "true" - Parameter "-coredump-attempts" in the command "system node coredump config" is "0".

Corrective Action

If the reason is "dump disabled in the current code path", there is no corrective action that can be taken. If the reason is "coredump configured to not dump cores", 1. "-coredump-attempts" parameter might be set to "0". Check the "Max Dump Attempts" value in the output of the "system node coredump config show -node node_name" command. If "0", use the "system node coredump config modify ←node node_name> -coredump-attempts <number_of_attempts>" command to set a non-zero value. The default is 2 attempts. 2. "dont-dump-core?" environment variable might be set to "true". From the nodeshell, use the (priv: diag) "bootargs dump" command to check whether "dont-dump-core?" exists and is set to "true". To unset the variable, use the "bootargs unset dont-dump-core?" command.

Coredump not performed because %s.

Parameters

reason (STRING): Reason that coredump was not performed.

coredump.dump.failed

Severity

EMERGENCY

Description

Coredump failed to complete.

Corrective Action

Previously logged coredump.dump.* events should help explain the exact cause of the failure.

Syslog Message

Dumpcore failed

Parameters

(None).

coredump.dump.find.all.used

Severity

ERROR

Description

Unsaved cores occupy all the disks available to dumpcore.

Corrective Action

Save the unsaved cores using "savecore" or "savecore -f". If the cores aren't needed, run "savecore -k" to delete them.

Syslog Message

All available disks contain unsaved cores

Parameters

(None).

coredump.dump.find.disks.failed

Severity

ERROR

Description

Could not find any suitable disks for dumping a core.

Corrective Action

Make sure there are non-broken disks connected to (and owned by) the panicing host.

Syslog Message

No valid disks found

Parameters

(None).

coredump.dump.find.spare.failed

Severity

ERROR

Description

A sparecore dump is supposed to be done, but no suitable spare disk can be found. In these situations, it is more important to allow a fast takeover than it is to get the core, so the dump is terminated, and takeover begins.

Corrective Action

Add a spare disk to the system, or disable the "cf.takeover.on_panic" option.

Syslog Message

No valid spare disk found

Parameters

(None).

coredump.dump.nvram.copy.failed

Severity

ERROR

Description

Error while copying NVRAM into main memory during dumpcore. The resulting coredump will have dummy data in the NVRAM segment.

Corrective Action

(None).

Syslog Message

Error while copying NVRAM contents into main memory

Parameters

(None).

coredump.dump.raid.notready

Severity

ERROR

Description

RAID has not yet processed the labels on the, disks, so dumpcore cannot proceed. This is typically the case for panics very early during boot.

Corrective Action

(None).

Syslog Message

RAID not ready to dump cores

Parameters

(None).

coredump.dump.recursive.late

Severity

ERROR

Description

A recursive panic situation has been encountered. The location of the second panic makes it unsafe to attempt another dump.

Corrective Action

(None).

Syslog Message

Late recursive panic caused dumpcore to abort

Parameters

(None).

coredump.dump.save.latest.core

Severity

ERROR

Description

The boot option save-latest-core? is set to true. This will discard all unsaved cores during coredump.

Corrective Action

If the behavior is not desired then set the boot option save-latest-core? to false.

Syslog Message

Saving the latest core and discarding all unsaved cores.

Parameters

(None).

coredump.dump.scrub.skipped

Severity

NOTICE

Description

This message occurs when the coredump process was asked to scrub sensitive memory areas but could not do so. The dump must be aborted to avoid saving such memory areas to disk.

Corrective Action

(None).

Syslog Message

Could not scrub protected memory regions.

Parameters

(None).

coredump.dump.segments.count

Severity

ERROR

Description

Dumpcore ran out of space for the core segments in the header. This core cannot be dumped.

Corrective Action

Disable the "coredump.metadata_only" option.

Syslog Message

Out of segment space in the core header

Parameters

(None).

coredump.dump.spare.no.space

Severity

ERROR

Description

The selected spare disk might not be big enough to hold the core. The dump attempt has been aborted.

Corrective Action

Make sure a spare disk is available that is at least as big as the sum of main memory and NVRAM. Set the option "coredump.metadata_only" to "on". If the problem persists, turn off the option "cf.takeover.on_panic". This will disable the sparecore feature, and delay takeovers until the panicing partner has finished dumping the core.

Syslog Message

Spare disk too small for coredump

Parameters

(None).

coredump.dump.started

Severity

INFORMATIONAL

Description

Basic info about start of dumpcore

Corrective Action

(None).

Syslog Message

%s starting with %d disks

Parameters

type (STRING): Type of dump. Possible types are compressed, sprayed, and sparecore.
disks (INT): Number of disks being used

coredump.dump.time

Severity

INFORMATIONAL

Description

Information about how long dumpcore took to complete.

Corrective Action

(None).

Syslog Message

%s completed in %d seconds

Parameters

type (STRING): Type of dump. Possible types are compressed, sprayed, and sparecore.
seconds (INT): Number of seconds spent on the dump

coredump.dump.write.blocks.failed

Severity

ERROR

Description

Failed to write dump data blocks to disk. If the write failed because of disk problems, dumpcore will restart, without the disk that failed. If the write failed for other reasons (eg. attempt to write to a bad position on the disk), dumpcore will be aborted.

Corrective Action

(None).

Syslog Message

Error dumping %llu blocks starting at block %llu to disk %s

Parameters

blocks (LONGINT): Number of blocks trying to be dumped
start (LONGINT): Starting block number
disk (STRING): Name of disk on which the write failed

coredump.dump.write.error

Severity

ERROR

Description

An i/o error occurred while attempting to write a coredump to disk.

Corrective Action

(None).

Syslog Message

An i/o error occurred while attempting to dump core.

Parameters

(None).

coredump.dump.write.header.failed

Severity

ERROR

Description

Failed to write the core header to disk during dumpcore.

Corrective Action

(None).

Syslog Message

Error writing core header to block %llu on disk %s

Parameters

header (LONGINT): Block number of the core header block
disk (STRING): Name of disk on which the write failed

coredump.encryption events

coredump.encryption.disabled

Severity

ERROR

Description

This message occurs when encryption is configured on the controller, but the coredump subsystem cannot encrypt data. A system panic in this situation results in no core file being produced.

Corrective Action

(Call support).

Syslog Message

Coredump encryption cannot encrypt data. Core file will not be saved in this state.

Parameters

(None).

coredump.encryption.restored

Severity

NOTICE

Description

This message occurs when encryption is configured on the controller, the coredump subsystem experienced a transient problem encrypting data, but has since recovered and will be able to save encrypted core dump files in the event of a system panic.

Corrective Action

(None).

Syslog Message

Coredump encryption experienced a failure in the past but has recovered. Core files can now be saved.

Parameters

(None).

coredump.findcore events

coredump.findcore.error

Severity

ERROR

Description

This message occurs when the core dump process detects an error while checking for an unsaved core in the dump device. The dump is not aborted.

Corrective Action

(None).

Syslog Message

Ignored the error (%d: %s) when trying to find an unsaved core in the dump device.

Parameters

errCode (INT): Error code.
errString (STRING): Error code represented as a string.

coredump.findcore.nospace

Severity

ERROR

Description

There are too many unsaved cores on the system to handle them all at one time. Some cores are being ignored.

Corrective Action

Run "savecore" multiple times to save all the cores. Alternatively, run "savecore -k" to delete all of them.

Syslog Message

Too many unsaved cores

Parameters

(None).

coredump.findcore.partial

Severity

ERROR

Description

This message occurs during a core dump, when only a partial core is found. Although enough of this core is present for the core to be partially saved, there might be errors while doing so. These occur when data essential to the core creation process is lost with the missing disks.

Corrective Action

Run the "savecore" command to attempt to save the partial core, or run the "savecore -k" command to delete all unsaved cores.

Syslog Message

Partial core %s is missing %d of %d disks.

Parameters

corefile (STRING): Name of the kernel core file.
missing (INT): Number of disks that are missing.
total (INT): Total number of disks used in this dump.

coredump.findcore.partial.nosave

Severity

ERROR

Description

This message occurs when a partial core is found with too much missing to be saved.

Corrective Action

Run the "savecore -k" command to delete all unsaved cores.

Syslog Message

Cannot save partial core %s, missing %d of %d disks.

Parameters

corefile (STRING): Name of the kernel core file.
missing (INT): Number of disks that are missing.
total (INT): Total number of disks used in this dump.

coredump.host events

coredump.host.spare.none

Severity

INFORMATIONAL

Description

This message occurs when no sparecore disk is found at boot/takeover time.

Corrective Action

(None).

Syslog Message

No sparecore disk was found for host %d.

Parameters

host (INT): Host for which no sparecore disk was found.

coredump.host.spare.save

Severity

INFORMATIONAL

Description

This message occurs to tell you which disk was identified as the sparecore disk at boot/takeover time.

Corrective Action

(None).

Syslog Message

Disk %s was identified as the sparecore disk at boot/takeover time for host %d.

Parameters

    diskname (STRING): Name of the sparecore disk.
    host (INT): Host that the sparecore disk belongs to.

coredump.host.spare.set

Severity

    INFORMATIONAL

Description

    This message occurs when a disk is identified as a sparecore disk and the host's sparecoreinfo is updated during assimilation.

Corrective Action

    (None).

Syslog Message

    (None).

Parameters

    disk (STRING): Name of the sparecore disk
    host (INT): Host whose sparecoreinfo was updated.

coredump.job events

coredump.job.notstarted

Severity

    ERROR

Description

    This message occurs when the system can not automatically save a core failed.

Corrective Action

    Use the 'system node coredump save' command to save the core.

Syslog Message

    (None).

Parameters

    (None).

coredump.job.notswitchedback

Severity

    ERROR

Description

    This message occurs when the system cannot automatically save cores because a MetroCluster(tm) switchback was not performed.

Corrective Action

Return storage to the MetroCluster member by using the "metrocluster switchback" command, and then use the "coredump save-all" command to save any unsaved cores.

Syslog Message

System cannot automatically save cores because a MetroCluster switchback was not performed.

Parameters

(None).

coredump.long events

coredump.long.queued.msg

Severity

NOTICE

Description

This message occurs when the coredump manager thread detects that a message has been queued longer than expected, as defined by an internal threshold. System features and performance are not affected.

Corrective Action

(None).

Syslog Message

Coredump manager starts processing a long queued message: "%s" queued "%lu" ms.

Parameters

message_type (STRING): Coredump message type.
queue_time (LONGINT): Message queued duration, in milliseconds.
threshold (LONGINT): Message queued threshold, in milliseconds.

coredump.long.running.msg

Severity

NOTICE

Description

This message occurs when the coredump manager thread has finished processing a message that took longer than expected, as defined by an internal threshold.

Corrective Action

(None).

Syslog Message

Coredump manager finished processing a long running message: %s took %lu ms.

Parameters

message_type (STRING): Coredump message type.
duration (LONGINT): Message processing duration, in milliseconds.
threshold (LONGINT): Message processing threshold, in milliseconds.

coredump.mcc events

coredump.mcc.nso.veto

Severity

INFORMATIONAL

Description

This message occurs when the coredump subsystem vetoes MetroCluster(tm) negotiated switchover because a coredump save is in progress.

Corrective Action

Use the "node coredump status" command to verify the completion of the active coredump save, or use the "-override-vetoes true" option when performing MetroCluster switchover. Using the "-override-vetoes true" option will abort the active coredump save.

Syslog Message

MetroCluster switchover vetoed because a coredump save was in progress.

Parameters

(None).

coredump.micro events

coredump.micro.completed

Severity

INFORMATIONAL

Description

Microcore generation has completed.

Corrective Action

(None).

Syslog Message

Microcore (%s) generation completed

Parameters

file (STRING): Pathname of microcore that was created

coredump.micro.failed

Severity

ERROR

Description

Microcore generation has failed.

Corrective Action

(Call support).

Syslog Message

Generation of microcore failed

Parameters

(None).

coredump.nosavecore events

coredump.nosavecore.noflush

Severity

NOTICE

Description

This message occurs when the process that saves a coredump is not able to flush to the boot device at the end of coredump.

Corrective Action

(None).

Syslog Message

Coredump was not able to flush the remaining data to the boot device. Error: %llu.

Parameters

dumpcore_error (LONGINTHEX): Coredump error code.

coredump.nvlog events

coredump.nvlog.replay.dump.dont

Severity

NOTICE

Description

This message occurs when one or more unsuccessful attempts have been made to process information in the WAFL ® NVlog after a previous failure. The number of allowed core dumps has been exceeded and this core dump will not be taken.

Corrective Action

The node will reboot. No further action is necessary.

Syslog Message

Core dump was not taken for the latest failure while processing the WAFL NVlog.

Parameters

(None).

coredump.save events

coredump.save.aborted

Severity

NOTICE

Description

This message occurs when the savecore operation is aborted while saving a kernel core. The core is preserved for a future iteration of savecore.

Corrective Action

(None).

Syslog Message

%s processing savecore aborted%s%s.

Parameters

file (STRING): Name of the kernel core file being created.
operation (STRING): Type of operation that is being attempted when the abort occurs.
action (STRING): Type of action being taken when the abort occurs.

coredump.save.attempts.count

Severity

NOTICE

Description

Previous attempts to save this core have failed, either due to reboots or panics. To prevent a panic loop, savecore is aborting this attempt.

Corrective Action

Use either "savecore -f" to save the core, or "savecore -k" to erase the core.

Syslog Message

Too many attempts to save this core

Parameters

(None).

coredump.save.completed

Severity

NOTICE

Description

This message occurs when all the core segments belonging to a coredump have been saved.

Corrective Action

(None).

Syslog Message

Saved core %s for node %s in %llu seconds. Core size is %llu bytes.

Parameters

file (STRING): Primary core segment file that was created.
node (STRING): Name of the node whose core was saved.
seconds (LONGINT): Number of seconds spent on saving all the core segments.
size (LONGINT): Size of primary core segment in bytes.
chksum (STRING): Checksum of primary core segment file's data.

coredump.save.denied

Severity

INFORMATIONAL

Description

This message occurs when the coredump subsystem cannot finish saving a core because an aggregate relocation or a takeover is in progress. The system cannot save a core while either an aggregate relocation or a takeover is in progress.

Corrective Action

(None).

Syslog Message

Coredump save disallowed because an aggregate relocation or a takeover in progress.

Parameters

(None).

coredump.save.disk.missing

Severity

INFORMATIONAL

Description

A disk being used by coredump is now missing. This could be due to the ownership of the disk changing, the disk being removed, etc. Most savecore operations will proceed, but if further errors are encountered, or an expected core cannot be found, corrective action will be necessary.

Corrective Action

If this disk has failed, no action is possible. If this message was seen while running a "savecore -s", "savecore -i", or "savecore -l" operation, replace the missing disk. This might be done by undoing the ownership change, or reinserting the missing disk. If this message was seen while saving the core, and no further errors were seen, no action is necessary. If more errors were seen, replace the missing disk as above, and run "savecore" again.

Syslog Message

Disk %s being used by coredump is missing

Parameters

disk (STRING): Name of the missing disk

coredump.save.diskio.zone

Severity

ERROR

Description

A disk IO operation was attempted outside of the allowed regions on the disk. This behavior indicates a corrupt core, and it will be deleted.

Corrective Action

(None).

Syslog Message

IO to %d block(s) starting at %llu on disk %s is not allowed

Parameters

count (INT): Number of blocks in IO request
start (LONGINT): Starting block number on the disk
disk (STRING): Name of the disk causing trouble

coredump.save.error

Severity

NOTICE

Description

A correctable error was encountered while saving the core. Savecore will continue saving other cores.

Corrective Action

Once savecore finishes, address errors that may have appeared, and restart savecore.

Syslog Message

%s processing encountered error

Parameters

file (STRING): The core file that savecore was attempting to create

coredump.save.failed

Severity

NOTICE

Description

An unrecoverable error was encountered while saving the core. This core will be deleted, and savecore will continue saving other cores.

Corrective Action

(None).

Syslog Message

%s processing failed

Parameters

file (STRING): The core file that savecore was attempting to create

coredump.save.internal.error

Severity

ERROR

Description

An internal coredump error was encountered. This indicates the dumped core is corrupt, and will be deleted.

Corrective Action

(None).

Syslog Message

Internal coredump error

Parameters

(None).

coredump.save.nospace

Severity

ALERT

Description

This message occurs when there is not enough space in the root volume to save the core. Savecore is making a worst-case estimate when determining how much space might be needed to save the core, and does not start unless that much space is available.

Corrective Action

Try performing the following steps to make sufficient room in root volume: Delete old or unneeded core files by using the "coredump delete" command. Delete old or unneeded core file segments by using the "coredump segment delete" command. Delete any Snapshot® copies that include the deleted files. Adjust minimum free space on the root file system by using "coredump config modify" command. Once there is sufficient room, take the following steps to save the cores: To save all core files using "coredump save-all" command, run the "coredump status -instance" command and ensure that "Space Available On Internal Filesystem" is greater than "Space Needed to Save All Unsaved Cores" plus "Minimum Free Bytes on Root Filesystem". To save a specific core file, run the "coredump save" command, when available space of "Space Needed To Save Core" (from the "coredump show" command) plus "Minimum Free Bytes on Root Filesystem" is sufficient.

Syslog Message

Available space (%llu %dKB blocks) is not enough to save the core image (requires up to %llu blocks) and maintain the minimum free space of %llu blocks.

Parameters

avail (LONGINT): Number of blocks available for saving the core image.
blocksize (INT): Block size in kilobytes.
needed (LONGINT): Number of blocks needed for saving the core image.
minfree (LONGINT): Number of blocks reserved for normal system operation.

coredump.save.partial.not.ok

Severity

INFORMATIONAL

Description

Can not save partial core that was dumped using disks with different sizes. Savecore can not determine the size of the missing disks. Attempting a save in this condition will most likely end up in an error.

Corrective Action

Run "savecore -k" to delete all unsaved cores.

Syslog Message

Cannot save partial core (%s) that used disks with different sizes, missing %llu of %llu disks

Parameters

panic (STRING): Panic string of the partial core.
missing (LONGINT): The number of disks that are missing
total (LONGINT): Total number of disks used in this dump

coredump.save.read.header.failed

Severity

NOTICE

Description

An error was encountered while trying to read the core header block from disk.

Corrective Action

(None).

Syslog Message

Could not read core header block (%llu) from disk %s

Parameters

block (LONGINT): Block number being searched for the core header
disk (STRING): Name of the disk that could not be read

coredump.save.started

Severity

INFORMATIONAL

Description

This message occurs when the savecore operation starts saving a kernel core.

Corrective Action

(None).

Syslog Message

Saving %llu MB to %s via %s ("%s") for node %s.

Parameters

    size (LONGINT): Number of MB being saved.
    file (STRING): Name of the kernel core file to be created.
    dumpcoretype (STRING): Kernel coredump type.
    panic (STRING): Panic string of the kernel core being saved.
    node (STRING): Name of the node whose core is being saved.

coredump.segment events

coredump.segment.auto.fail

Severity

    NOTICE

Description

    This message occurs when the system enounters an error while trying to send a core segment request.

Corrective Action

    (None).

Syslog Message

    Failed to start automatic segmenting for core file, %s , for host %d.

Parameters

    file (STRING): Name of the core file that would have been segmented.
    host (INT): Host that owns the core file.

coredump.segment.auto.pfail

Severity

    INFORMATIONAL

Description

    This message occurs when the system cannot start the segmenting of a core file because the node is no longer in takeover mode.

Corrective Action

    (None).

Syslog Message

    Cannot start segmenting a core file, %s. Node is no longer in takeover mode.

Parameters

    file (STRING): Name of core file that would have been segmented.

coredump.segment.completed

Severity

    NOTICE

Description

This message occurs when the segmenting of a full core file has been completed.

Corrective Action

(None).

Syslog Message

Saved core segment %s for node %s. Core size is %llu bytes and core data checksum is %s.

Parameters

file (STRING): Name of the core file segmented.
node (STRING): Name of the node whose core segment was saved.
size (LONGINT): Size of core segment in bytes.
chksum (STRING): Checksum of the core segment file's data.

coredump.shutdown events

coredump.shutdown.trace

Severity

NOTICE

Description

This message occurs when a core is about to be generated. Durations of various activities at that time are reported.

Corrective Action

(None).

Syslog Message

coredump shutdown times: kmod dumper start %llu, panic_info set %llu, sf_dumpcore sent %llu, sparecore id sent %llu, fmot_outage info sent %llu, disk_dump_start done %llu, coredump begin %llu (all in msec).

Parameters

kmodDumperStartTime (LONGINT): Duration from panic start to dump processing start, in milliseconds.
panicInfoTime (LONGINT): Duration until panic information is collected, in milliseconds.
sfDumpcoreSentTime (LONGINT): Duration until SF_DUMPCORE state is sent over the interconnect, in milliseconds.
sparecoreSentTime (LONGINT): Duration for sending the sparecore ID over the interconnect, in milliseconds.
fmotOutageSentTime (LONGINT): Duration for sending FMOT (Failover Monitor Outage Tracker) Outage information over the interconnect, in milliseconds.
diskDumpStartTime (LONGINT): Duration until disk dump start stage, in milliseconds.
coredumpBeginTime (LONGINT): Duration until the start of the actual core dump, in milliseconds.

coredump.spare events

coredump.spare.abort

Severity

INFORMATIONAL

Description

This message occurs when coredump attempts to terminate any sparecore dump that might be in progress on the partner. This process can take up to 60 seconds. During this time, other coredump operations are not serviced.

Corrective Action

(None).

Syslog Message

Pausing to abort partner sparecore dump because %s.

Parameters

reason (STRING): Reason for aborting the partner sparecore dump.

coredump.spare.abort.failed

Severity

ERROR

Description

Unable to reserve the sparecore disk. This disk cannot be used by RAID until it is successfully reserved.

Corrective Action

If the other partner can be booted, do a giveback. Otherwise, periodic attempts will automatically be made to reserve the disk in question.

Syslog Message

Sparecore disk could not be reserved

Parameters

(None).

coredump.spare.abort.release

Severity

NOTICE

Description

This message occurs when the system enounters an error while trying to release the disk reservation from a disk.

Corrective Action

(None).

Syslog Message

Could not release disk reservation from disk %s (0x%x)

Parameters

    diskname (STRING): Name of the disk whose disk reservation could not be released.
    diskid (INTHEX): ID of the disk whose disk reservation could not be released.

coredump.spare.dump

Severity

    INFORMATIONAL

Description

    This message occurs to tell you which disk was used as the sparecore disk at dumpcore time.

Corrective Action

    (None).

Syslog Message

    Disk %s was used as the sparecore disk at dumpcore time.

Parameters

    diskname (STRING): Name of the sparecore disk.

coredump.spare.invalid.size

Severity

    ERROR

Description

    This message occurs when coredump subsystem encounters a spare disk with an invalid size. If an unsaved core file exists on this disk, it will be deleted because it can no longer be saved.

Corrective Action

    Run the "storage disk show -disk disk_name" command to make sure that the disk is still connected as a spare disk. If so, replace the disk. If not, the disk is part of an aggregate or is in the process of being assigned to one, and no action is required.

Syslog Message

    sparecore disk: %s has invalid size: %llu, skipping it from all coredump subsystem operations

Parameters

    disk (STRING): Name of the disk.
    size (LONGINT): Size available on the disk, reported by RAID.

coredump.sparecore events

coredump.sparecore.killed

Severity

    INFORMATIONAL

Description

Sparecore was aborted by partner.

Corrective Action

(None).

Syslog Message

Sparcore was aborted by partner.

Parameters

(None).

coredump.sparecoreinit events

coredump.sparecoreinit.times

Severity

NOTICE

Description

This message occurs when sparecore initialization is completed. Durations of constituent activities within sparecore initialization are reported.

Corrective Action

(None).

Syslog Message

sparecore_init: update firmware %llu msec, write partial headers %llu msec, clear abort area %llu msec, write node status %lld msec.

Parameters

fwUpdateTime (LONGINT): Time taken to update firmware, in milliseconds.
partialHeaderTime (LONGINT): Time taken to write partial headers, in milliseconds.
clearAbortAreaTime (LONGINT): Time taken to clear sparecore abort area, in milliseconds.
writeNodeStatusTime (LONGINT): Time taken to write the node status information to the sparecore disk, in milliseconds, if any.

cpeer events

cpeer.access events

cpeer.access.restricted

Severity

ERROR

Description

This message occurs when an access request from a peer cluster is rejected, either because the request is made to a restricted Vserver or to a restricted table.

Corrective Action

Check the Vserver peering relationships with the peer cluster. If additional Vserver access is required, use the "vserver peer create" command to initiate the peering relationship with the peer cluster.

Syslog Message

An access request from peer cluster %s (IP: %s) was denied. Reason: %s.

Parameters

peer (STRING): Name of the peer cluster making the request to the local cluster.
address (STRING): Source IP address of the incoming request.
reason (STRING): Reason for the access restriction.

cpeer.addr events

cpeer.addr.bad.dns

Severity

ERROR

Description

This message occurs when a stable address for the peer cluster cannot be resolved because of a bad name-server. This will make the peer cluster unreachable and cross-cluster operations will fail. Stable addresses are normally provided by the administrator during cluster peer creation.

Corrective Action

Delete the incorrect DNS server entry for the local cluster using the 'vserver services dns delete' command.Create a new DNS entry with the correct name-server using the 'vserver services dns create' command. If you need further assistance,contact NetApp technical support.

Syslog Message

Failed to resolve address %s of peer cluster %s, Reason:bad name-server.

Parameters

addr (STRING): Peer cluster stable IP addresses that cannot be contacted.
peer (STRING): Name of the peer cluster whose stable address cannot be contacted.

cpeer.addr.bad.host

Severity

ERROR

Description

This message occurs when a stable IP address for the peer cluster is no longer valid. This will make the peer cluster unreachable and cross-cluster operations will fail. Stable addresses are normally provided by the administrator during cluster peer creation.

Corrective Action

Correct the stable IP address using the 'cluster peer modify' command. If you need further assistance, contact NetApp technical support.

Syslog Message

Failed to resolve address %s of peer cluster %s, Reason:invalid address.

Parameters

addr (STRING): Peer cluster stable addresses that is not valid.
peer (STRING): Name of the peer cluster whose stable address is not valid.

cpeer.addr.stable.down

Severity

ERROR

Description

This message occurs when a stable address cannot be contacted. Stable addresses are provided by the administrator during peer creation.

Corrective Action

Verify network connectivity between the local cluster and the peer cluster. Check the logs, trace buffers, and UI output for more information about the nature of the failure.

Syslog Message

Stable address %s of cluster %s, in IPspace %s, cannot be contacted.

Parameters

addr (STRING): Stable address that cannot be contacted.
peer (STRING): Name of the peer cluster whose address cannot be contacted.
ipspace (STRING): IPspace in which the contact attempt was made.

cpeer.addr.warn.host

Severity

ALERT

Description

This message occurs when a stable IP address for the peer cluster is no longer valid, making the peer cluster unreachable and causing cross-cluster operations to fail.

Corrective Action

Correct the stable IP address using the "cluster peer modify" command. Valid addresses for the remote ("peer") cluster are given under "Active IP Addresses" when you use the "cluster peer show -instance" command. Verify connectivity by using the "cluster peer ping" command. If you need further assistance, contact NetApp technical support.

Syslog Message

Address %s is not any of the addresses that peer cluster %s considers valid for the cluster peer relationship; Details: %s

Parameters

addr (STRING): Peer cluster stable address that is not valid.
peer (STRING): Name of the peer cluster whose stable address is not valid.
complaint (STRING): Details, if any, of the issue with the stable address.

cpeer.authentication events

cpeer.authentication.create

Severity

NOTICE

Description

This message occurs when authentication is successfully established with a peer cluster.

Corrective Action

(None).

Syslog Message

The peering relationship with cluster %s is now authenticated.

Parameters

peer (STRING): Peer cluster with which this cluster is now mutually authenticated.

cpeer.authentication.disable

Severity

NOTICE

Description

This message occurs when authentication is disabled for a cluster peer relationship.

Corrective Action

(None).

Syslog Message

The peering relationship with cluster %s is now unauthenticated.

Parameters

peer (STRING): Peer cluster that is now peered to this cluster without authentication.

cpeer.authentication.revoke

Severity

ERROR

Description

This message occurs when authentication is revoked for a cluster peer relationship.

Corrective Action

Modify the relationship to match on both of the peered clusters. To have them agree on an unauthenticated relationship, use the 'cluster peer modify -authentication no-auth' command. To have them agree on an authenticated relationship, use the same passphrase with the 'cluster peer modify -authentication use-auth' command.

Syslog Message

The peering relationship with cluster %s is now revoked and is no longer functional.

Parameters

peer (STRING): Peer cluster for which the peering relationship has had its peering authentication revoked.

cpeer.authentication.viol

Severity

NOTICE

Description

This message occurs when a cross-cluster access should be authenticated, but is not. The access has been denied successfully.

Corrective Action

(None).

Syslog Message

Access as peer cluster %s was claimed from network address %s, but has not been granted because %s.

Parameters

peer (STRING): Peer cluster on behalf of which this access was made.
remoteAddress (STRING): Remote network address of the violating connection.
reason (STRING): Justification for the violation claim.

cpeer.create events

cpeer.create.reciprocal.fail

Severity

ERROR

Description

This message occurs when a peer cluster reciprocal join fails.

Corrective Action

Verify network connectivity between the local cluster and the peer cluster. Check the logs, trace buffers, and UI output for more information about the nature of the failure.

Syslog Message

Cluster %s attempted to create a reciprocal peer relationship with this cluster but failed.

Parameters

peer (STRING): Peer cluster which executed the reciprocal join.

cpeer.create.reciprocal.ok

Severity

NOTICE

Description

This message occurs when a peer cluster reciprocal join succeeds.

Corrective Action

(None).

Syslog Message

Cluster %s is now peered with this cluster.

Parameters

peer (STRING): Peer cluster that executed the reciprocal join.

cpeer.dns events

cpeer.dns.family.mismatch

Severity

ERROR

Description

This message occurs when an attempt is made to resolve and insert a stable address that is a Domain Name System (DNS) style host name. If it resolves to an address family that does not match the family style specified for the cluster peer relationship, it is indicative of incorrect addresses being provided by the administrator or DNS configuration issues. Stable addresses are typically provided by the administrator during cluster peer creation and can be modified by modifying the peer relationship.

Corrective Action

Correct the stable IP address by using the 'cluster peer modify' command. Ensure that LIFs of the appropriate address family exist on both the local cluster and the remote peer. Confirm that the DNS services are appropriately specified by using the 'vserver services dns show' command. Also, the DNS server in question should be configured correctly to be able to resolve the DNS style host name to an IP address belonging to the appropriate address family. If you need further assistance, contact NetApp technical support.

Syslog Message

Host name %s of peer cluster %s resolved to %s, which does not match the peer relationship's selected address type.

Parameters

addr (STRING): Peer cluster host name that is being inserted.
peer (STRING): Name of the peer cluster for which an address family mismatch was seen.
resolved_address (STRING): Address resolved to, which belongs to the incorrect address family.

cpeer.duplicate events

cpeer.duplicate.remote.addr

Severity

ERROR

Description

This message occurs when an IP address from a peer cluster is also in use by the local cluster in the same IPspace. This may prevent the cluster peering relationship from reaching an available state.

Corrective Action

Replace the duplicate address on the local cluster with a different address.

Syslog Message

Cannot use address %s from peer cluster %s because it is already in use on the local cluster.";

Parameters

address (STRING): Duplicate address from the peer cluster.
peer (STRING): Name of the peer cluster.

cpeer.ip events

cpeer.ip.family.mismatch

Severity

ERROR

Description

This message occurs when an attempt is made to insert an IP address whose address family does not match the family style specified for the cluster peer relationship. This is indicative of incorrect addresses being provided by the administrator. Stable addresses are typically provided by the administrator during cluster peer creation and can be modified by modifying the peer relationship.

Corrective Action

Correct the stable IP address by using the 'cluster peer modify' command. Ensure that the LIFs of the appropriate address family exist on both the local cluster and the remote peer. If you need further assistance, contact NetApp technical support.

Syslog Message

Failed to insert address %s of peer cluster %s, reason: %s

Parameters

> **addr** (STRING): Peer cluster address that is being inserted.
> **peer** (STRING): Name of the peer cluster for which an address family mismatch was seen.
> **reason** (STRING): Reason that the EMS message was sent.

cpeer.localid events

cpeer.localid.bad

Severity

> ERROR

Description

> This message occurs when there is an issue reading the local cluster ID. This indicates a serious problem with the cluster which may affect processes outside of cluster peering.

Corrective Action

> (Call support).

Syslog Message

> Unexpected local cluster ID: %s.

Parameters

> **id** (STRING): The string representation of the bad cluster ID.

cpeer.long events

cpeer.long.remote.update

Severity

> ERROR

Description

> This message occurs when a cross-cluster update takes longer than 15 minutes. This indicates a communication failure between the clusters.

Corrective Action

> Ensure cross-cluster network connectivity by performing network diagnostics using the "cluster peer ping" command and either the "network ping" or "network ping6" command. Correct IP address issues by using the "cluster peer modify" command. Ensure that LIFs of the appropriate address family exist on both the local cluster and the remote peer. Confirm that the DNS services are appropriately configured by using the "vserver services dns show" command. You can use "cluster peer show" to list the state of all peer clusters. This is a point-in-time command and the health of remote clusters might not have been updated yet. If you need further assistance, contact NetApp technical support.

Syslog Message

> Cross-cluster update job took longer than 15 minutes. Potential network connectivity issues.

Parameters

> (None).

cpeer.modify events

cpeer.modify.address.family

Severity

NOTICE

Description

This message occurs when the address family for a peering relationship is modified. The same configuration change should be made at the peered cluster in a timely manner. Peering services are maintained while intercluster LIFs of both address families are configured on each cluster.

Corrective Action

This is a notification of a configuration change. No corrective action applies.

Syslog Message

Address family change for peer cluster %s to address family %s.

Parameters

peer (STRING): Name of the peer cluster affected by the address family change.
family (STRING): The new address family of the peering relationship.

cpeer.out events

cpeer.out.pp.mismatch

Severity

ERROR

Description

This message occurs when an outgoing cluster peer request authentication fails due to a passphrase mismatch.

Corrective Action

For multiple occurrences of this event, verify the peering request with the admin of this local cluster. If the admin is not responsible for the attempts, the local cluster might be under attack.

Syslog Message

This cluster did not accept a cluster peering authentication offer from cluster %s//%s due to a passphrase mismatch. Acceptance was attempted on session %s, command %s, application %s, location %s, port %s, user name %s, auth_method %s, and PSK method %s.

Parameters

remotename (STRING): Name of the cluster to which the contact was made.
remoteuuid (STRING): UUID of the cluster to which the contact was made.
session (STRING): Session ID over which the contact was made.
command (STRING): Command ID for which the contact was made.
application (STRING): Application used for the contact.
location (STRING): Location from which the contact was made.
port (STRING): Port over which the contact was made.
username (STRING): User name for the contact.

authMethod (STRING): Authentication method for the user.
offerStyle (STRING): Style of authentication offer.

cpeer.passphrase events

cpeer.passphrase.expired

Severity

NOTICE

Description

This message occurs when the cluster peer offer for anonymous cluster with system-generated passphrase expired and deleted.

Corrective Action

If required, use the "cluster peer create" command with "generate-passphrase" option to generate the additional cluster peer offers.

Syslog Message

The cluster peer offer with system-generated passphrase (%s) expired and deleted.

Parameters

passphase_details (STRING): Cluster peer passphrase details.

cpeer.ping events

cpeer.ping.family.mismatch

Severity

ERROR

Description

This message occurs when an attempt is made to check the cluster peering relationship and no intercluster LIFs of the same address family and the correct IPspace are found on this node. Stable addresses are typically provided by the administrator during cluster peer creation and can be modified by modifying the peer relationship. The IPspace for a cluster peer relationship may be supplied when creating or modifying the relationship.

Corrective Action

Correct the stable IP address by using the "cluster peer modify" command. Ensure that LIFs of the appropriate address family exist on both the local cluster and the remote peer. Ensure that LIFs of the local cluster exist in the given IPspace.

Syslog Message

Failed to find LIFs of type %s on node %s for destination address %s in IPspace %s belonging to destination cluster %s.

Parameters

peering_family (STRING): IP address family.
node (STRING): Originating node.
dest_address (STRING): Destination IP address.

ipspace (STRING): IPspace for the relationship.
dest_cluster (STRING): Destination cluster.

cpeer.ping.no.lifs

Severity

ERROR

Description

This message occurs when an attempt is made to check the cluster peering relationship and no intercluster LIFs in the correct IPspace are found on this node.

Corrective Action

Create intercluster LIFs with the same address family and IPspace as the peering relationship. If the peering relationship is obsolete, remove it by using the "cluster peer delete" command.

Syslog Message

Failed to find intercluster LIFs in IPspace %s on node %s.

Parameters

ipspace (STRING): IPspace for the relationship.
node (STRING): Originating node.

cpeer.pm events

cpeer.pm.update.warn

Severity

ERROR

Description

This message occurs when the peer manager job experiences a transient failure. The peer manager job periodically contacts one peer cluster and performs updates of cluster-wide state necessary to support cross-cluster enabled features.

Corrective Action

Verify network connectivity between the local cluster and its peer clusters. It might be necessary to manually correct the peer clusters' configurations using the 'cluster peer modify' command if peer addresses have changed recently. Verify that each cluster is up.

Syslog Message

Periodic update of peer information from %s failed. The following operations are incomplete: %s

Parameters

peer (STRING): Peer whose updates failed.
failures (STRING): Failed peer updates.

cpeer.pp events

cpeer.pp.mismatch

Severity

ERROR

Description

This message occurs when an incoming cluster peer authentication request fails due to a passphrase mismatch.

Corrective Action

For multiple occurrences of this event, verify the peering request with the admin of the remote cluster. If the admin is not responsible for the attempts, the local or remote cluster might be under attack.

Syslog Message

Remote cluster %s//%s did not accept a cluster peering authentication offer (from address %s in IPspace %s) due to a passphrase mismatch. Local offer made on %s, valid for %s, with the %s PSK method.

Parameters

remotename (STRING): Name of the cluster for which the contact was made.
remoteuuid (STRING): UUID of the cluster for which the contact was made.
address (STRING): Network address from which the authentication attempt was made.
ipspace (STRING): IPspace from which the contact attempt was made.
offerTime (STRING): Time at which the offer from the local cluster was generated.
offerDuration (STRING): Duration of the offer from the local cluster.
offerStyle (STRING): Style of authentication offer.

cpeer.psk events

cpeer.psk.cluster.revoked

Severity

ERROR

Description

This message occurs when the system receives an authentication request for a remote cluster whose peer authentication has been revoked by the local cluster administrator. It might indicate that this system is under attack.

Corrective Action

ONTAP® software automatically closes the connection from which this incorrect authentication information was received. If this message is repeatedly generated from the same internet address, it might indicate that this system is under attack.

Syslog Message

ONTAP received a TLS request to authenticate with the pre-shared key of remote cluster %s, but the relationship with the remote cluster has been revoked by the administrator of this cluster. The request was sent from address %s in IPspace %s.

Parameters

clustername (STRING): Name of the remote cluster being probed.
sourceIP (STRING): IP address that is the source of the probe.

sourceIPspace (STRING): IPspace in which the probe arrived.

cpeer.psk.cluster.unauth

Severity

ERROR

Description

This message occurs when the system receives an authentication request for a remote cluster whose peer relationship is unauthenticated. It might indicate that this system is under attack. The request was sent from address %s in IPspace %s.

Corrective Action

ONTAP® software automatically closes the connection from which this incorrect authentication information was received. If this message is repeatedly generated from the same internet address, it might indicate that this system is under attack.

Syslog Message

ONTAP received a TLS request to authenticate with a cluster's pre-shared key, but there is no authenticated relationship with this remote cluster. Instead, the relationship is unauthenticated and has no keying information associated with it.

Parameters

clustername (STRING): Name of the remote cluster being probed.
sourceIP (STRING): IP address that is the source of the probe.
sourceIPspace (STRING): IPspace in which the probe arrived.

cpeer.psk.disabled

Severity

NOTICE

Description

This message occurs when the system is unable to find a suitable pre-shared key (PSK) cipher suite required for cluster peering. This is likely because the PSK cipher suites are disabled in the ONTAP security configuration. Cluster peering connections and associated applications may fail as a result.

Corrective Action

View the enabled cipher suites with the "security config show" command. Enable the PSK cipher suites with the "security config modify" command.

Syslog Message

The system was unable to find a suitable pre-shared key (PSK) cipher suite required for cluster peering. This is likely because the PSK cipher suites are disabled in the ONTAP security configuration. Cluster peering connections and associated applications may fail as a result.

Parameters

(None).

cpeer.psk.unknown.cluster

Severity

ERROR

Description

This message occurs when the system receives an authentication request from an unknown cluster. It might indicate that this system is under attack.

Corrective Action

ONTAP® software automatically closes the connection from which this incorrect authentication information was received. If this message is repeatedly generated from the same internet address, it might indicate that this system is under attack.

Syslog Message

ONTAP received a TLS request to authenticate with a remote cluster's pre-shared key, but the remote cluster UUID (%s) is unrecognized. The probe arrived from address %s in IPspace %s.

Parameters

clusterUUID (STRING): Cluster UUID being probed.
sourceIP (STRING): IP address that is the source of the probe.
sourceIPspace (STRING): IPspace in which the probe arrived.

cpeer.receiver events

cpeer.receiver.noindex

Severity

NOTICE

Description

This message occurs when an incoming cluster peer request using the system-generated passphrase. However, the cluster peer request failed because there is no matching outstanding cluster peer offers for the request in the system.

Corrective Action

Verify the peer request with peer cluster admin. If required, use the "cluster peer create" command with "generate-passphrase" option to generate the additional cluster peer offers.

Syslog Message

The cluster peer request from the remote cluster (%s) using the system-generated passphrase (Index: %d) has failed because cluster peer offer with system-generated passphrase is not available for this index.

Parameters

remote_cluster_details (STRING): Remote cluster name.
ppindex (INT): Cluster peer passphrase index.

cpeer.recv events

cpeer.recv.pp.mismatch

Severity

NOTICE

Description

This message occurs when there is an incoming cluster peer request using the system-generated passphrase. However, the cluster peer request authentication failed due to passphrase mismatch and so the cluster peer offer is deleted.

Corrective Action

Verify the peer request with peer cluster admin. If required, use the "cluster peer create" command with "generate-passphrase" option to generate the additional cluster peer offers.

Syslog Message

The cluster peer offer with system-generated passphrase was attempted for cluster peering by the remote cluster (%s:%s) with address %s but cluster peer request failed due to passphrase mismatch. So, the offer is deleted.

Parameters

remotename (STRING): Remote cluster name.
remoteuuid (STRING): Remote cluster UUID.
address (STRING): Remote cluster IP address.

cpeer.unavailable events

cpeer.unavailable

Severity

ALERT

Description

This message occurs when a peer cluster becomes unavailable.

Corrective Action

Verify network connectivity between the local cluster and the peer cluster. It might be necessary to manually correct the peer configuration using the 'cluster peer modify' command if peer addresses have changed recently. Verify that the peer cluster is up.

Syslog Message

Peer cluster %s is no longer available.

Parameters

peer (STRING): Peer cluster that became unavailable.

cpeer.xcm events

cpeer.xcm.addr.disc.warn

Severity

ERROR

Description

This message occurs when address discovery fails for a peer cluster.

Corrective Action

Verify network connectivity between the local cluster and the peer cluster. It might be necessary to manually correct the peer configuration using the 'cluster peer modify' command if peer addresses have changed recently. Verify that the peer cluster is up.

Syslog Message

Address discovery failed for peer cluster %s. Reason: %s.

Parameters

peer (STRING): Peer cluster whose address discovery failed.
reason (STRING): Reason for address discovery failure.

cpeer.xcm.update.warn

Severity

ERROR

Description

This message occurs when the cross-cluster manager job experiences a transient failure. The cross-cluster manager job periodically contacts each peer cluster, requests configuration information, and maintains the node-local network configuration for the remote peer cluster.

Corrective Action

Verify network connectivity between the local cluster and its peer clusters. It might be necessary to manually correct the peer clusters' configurations using the 'cluster peer modify' command if peer addresses have changed recently. Verify that each cluster is up.

Syslog Message

Periodic update of peer network information failed. The following operations are incomplete: %s.

Parameters

failures (STRING): Failed peer updates.

cr events

cr.data events

CR.Data.File.Inaccessible

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the namespace scanner skips an inode for which it cannot access the data file. This might be due to the data volume being offline.

Corrective Action

Bring the data volume back online using the "volume online" command. If the problem persists, retry the scan operation.

Syslog Message

The redirector file [%s] on namespace volume [%s] will be skipped by "Volume Check" because the corresponding data file on data volume [%s] in Vserver [%s] is not accessible.

Parameters

redirPath (STRING): Path of the redirector file that will be skipped.
nsVol (STRING): Name of the constituent namespace volume that hosts the redirector file.
dataVol (STRING): Name of the constituent data volume that hosts the data file.
vserver (STRING): Vserver hosting the constituent volumes.

cr.del events

CR.Del.CrptStreamData.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when an attempt to delete corrupt stream data fails.

Corrective Action

(None).

Syslog Message

Deletion failed for corrupt stream data [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the stream resides.
vserver (STRING): Vserver hosting the volume.

CR.Del.CrptStreamRedir.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when an attempt to delete corrupt stream redirector failed.

Corrective Action

(None).

Syslog Message

Deletion failed for corrupt stream redirector [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the stream resides.
vserver (STRING): Vserver hosting the volume.

CR.Del.DangStreamData.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when an attempt to delete dangling stream data fails. This stream was created when there was a failure in cleaning up stream data on the data constituent, which left dangling data that is unnecessarily consuming resources.

Corrective Action

(None).

Syslog Message

Deletion failed for dangling stream data [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the stream data resides.
vserver (STRING): Vserver hosting the volume.

CR.Del.DangStreamRedir.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when an attempt to delete dangling stream redirector failed.

Corrective Action

(None).

Syslog Message

Deletion failed for dangling stream redirector [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the redirector resides.
vserver (STRING): Vserver hosting the volume.

cr.fix events

CR.Fix.Corrupt.Redir.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when corrective action for corrupt redirector file failed.

Corrective Action

(None).

Syslog Message

Corrective action failed for corrupt redirector of data file [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): File path.
volume (STRING): Name of the constituent volume where the data file resides.
vserver (STRING): Vserver hosting the volume.

CR.Fix.Crpt.Data.Dir.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when the corrective action for a corrupt data directory fails. These entries were created when they were moved to the [lost+found] folder by waflIron, on the data constituents.

Corrective Action

(None).

Syslog Message

Corrective action failed for corrupt data directory [%s] on volume [%s].

Parameters

path (STRING): Directory path.
volume (STRING): Name of the constituent volume where the directory resides.
vserver (STRING): Vserver hosting the volume.

CR.Fix.Crpt.Data.File.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the corrective action for a corrupt data file fails.

Corrective Action

(None).

Syslog Message

Corrective action failed for corrupt data file [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): File path.
volume (STRING): Name of the constituent volume where the file resides.
vserver (STRING): Vserver hosting the volume.

CR.Fix.CrptStreamRedir.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the fix for corrupt stream redirector fails.

Corrective Action

(None).

Syslog Message

Corrective action failed for corrupt stream redirector of stream data [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the stream redirector resides.
vserver (STRING): Vserver hosting the volume.

CR.Fix.Dang.Data.File.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the corrective action for a dangling data file fails. This file was created when there was a failure in cleaning up a file on the data constituent, which left a dangling file that is unnecessarily consuming resources.

Corrective Action

(None).

Syslog Message

Corrective action failed for dangling data file [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): File path.
volume (STRING): Name of the constituent volume where the file resides.
vserver (STRING): Vserver hosting the volume.

CR.Fix.Nlinks.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the corrective action for an Nlinks (number of hardlinks on the file) mismatch fails.

Corrective Action

(None).

Syslog Message

Corrective action failed for Nlinks mismatch on file [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): File path.
volume (STRING): Name of the constituent volume where the file resides.
vserver (STRING): Vserver hosting the volume.

cr.rdb events

CR.RDB.Counters.Not.Updated

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when the RDB (replicated database) cannot be updated with the inode counters for a particular scan.

Corrective Action

(None).

Syslog Message

The inode counters [percentage scan complete: %d], [estimated time remaining: %s], [number of issues detected: %d] and [number of issues fixed: %d] could not be updated in the RDB due to [error: %s] for [volume: %s] in [Vserver: %s].

Parameters

percentComplete (INT): Percentage of the inodes scanned.
estimatedTime (STRING): Estimated time remaining for the scan to finish.
issuesDetected (INT): Number of issues detected by the scan so far.
issuesFixed (INT): Number of issues fixed by the scan so far.
reason (STRING): Reason for the failed update.
volume (STRING): Name of the constituent volume for which the RDB could not be updated.
vserver (STRING): Vserver hosting the volume.

CR.RDB.State.Not.Updated

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the RDB (replicated database) cannot be updated with the final state of the scan, that is, success/failure.

Corrective Action

Run the 'volume check stop' command on the respective volume.

Syslog Message

The final state [%s] of the 'volume check' scan could not be updated in the RDB due to [error: %s] for volume [%s] in Vserver [%s].

Parameters

state (STRING): Final state of the scan that has to be updated.
reason (STRING): Reason for the failed update.
volume (STRING): Name of the constituent volume for which the RDB could not be updated.
vserver (STRING): Vserver hosting the volume.

cr.redir events

CR.Redir.File.Inaccessible

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when the data scanner skips an inode for which it cannot access the redirector file. This might be due to the namespace volume being offline.

Corrective Action

Bring the namespace volume back online using the "volume online" command. If the problem persists, retry the scan operation.

Syslog Message

The data file [%s] on data volume [%s] will be skipped by "Volume Check" because the corresponding redirector file on namespace volume [%s] on Vserver [%s] is not accessible.

Parameters

dataFilePath (STRING): Path of the data file that will get skipped.
dataVol (STRING): Name of the constituent data volume that hosts the data file.
nsVol (STRING): Name of the constituent namespace volume that hosts the redirector file.
vserver (STRING): Vserver hosting the constituent volumes.

cr.snapshot events

CR.Snapshot.Not.Deleted

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when a temporary Snapshot(tm) copy created by the 'volume check' command could not be deleted.

Corrective Action

Delete the Snapshot copy by using the following command from "diag" mode: volume snapshot delete -vserver <vserver> -volume <volume> -snapshot <snapshot-name> -ignore-owners

Syslog Message

The temporary Snapshot copy [%s] created by the 'volume check' command for volume [%s] in Vserver [%s] could not be deleted [error: %s].

Parameters

snapshot (STRING): Name of the Snapshot copy.
volume (STRING): Name of the constituent volume for which the Snapshot copy could not be deleted.
vserver (STRING): Vserver hosting the volume.
reason (STRING): Reason for the failure.

cr.sync events

CR.Sync.ACL.Fail

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when an attempt to synchronize the ACL from data to redirector fails.

Corrective Action

(None).

Syslog Message

ACL synchronizing failed for file [%s] on volume [%s] in Vserver [%s].

Parameters

path (STRING): Stream path.
volume (STRING): Name of the constituent volume where the file resides.
vserver (STRING): Vserver hosting the volume.

crypto events

crypto.debug events

crypto.debug

Severity

INFORMATIONAL

Description

The Crypto module debug event.

Corrective Action

(None).

Syslog Message

%s.

Parameters

debug_string (STRING): Description of the event being logged.

crypto.export events

crypto.export.failed

Severity

ALERT

Description

This message occurs when the export of a cryptographic key fails.

Corrective Action

This message might be seen when attempting to create an encrypted volume. Contact NetApp technical support if further attempts to create the encrypted volume fail.

Syslog Message

ERROR: Export of key with key ID %s failed. Additional information: %s.

Parameters

key_id (STRING): Key ID for the cryptographic key.
msg (STRING): Associated failure message.

crypto.import events

crypto.import.failed

Severity

ALERT

Description

This message occurs when the import of a cryptographic key fails.

Corrective Action

This message might be seen when attempting to bring an encrypted volume online. Contact NetApp technical support if manual attempts to bring the encrypted volume online fail.

Syslog Message

ERROR: Import of key with key ID %s failed. Additional information: %s.

Parameters

key_id (STRING): Key ID for the cryptographic key.
msg (STRING): Associated failure message.

crypto.key events

crypto.key.deleted

Severity

NOTICE

Description

This message occurs when a cryptographic key is deleted.

Corrective Action

(None).

Syslog Message

Deleted key with key ID %s. Reason %s.

Parameters

key_id (STRING): Key ID for the cryptographic key.
reason (STRING): Reason for deletion.

crypto.key.stored

Severity

NOTICE

Description

This message occurs when a cryptographic key is stored.

Corrective Action

(None).

Syslog Message

Stored key with key ID %s. Key digest: %s.

Parameters

key_id (STRING): Key ID for the cryptographic key.

key_digest (STRING): Key digest for the cryptographic key.

crypto.okmrecovery events

crypto.okmrecovery.failed

Severity

ALERT

Description

This message occurs when the Onboard Key Manager (OKM) recovery command in the boot menu fails to recover the OKM hierarchy. Without the the OKM hierarchy, volumes encrypted using OKM will not come online, and you will not be able to use OKM to encrypt volumes.

Corrective Action

This message is usually seen when an incorrect cluster passphrase was entered during a previous boot menu recovery command. Often, using the "security key-manager onboard sync" command will resolve the situation. If that does not fix the problem, the OKM hierarchy can be recovered during the boot process. To recover the OKM hierarchy during the boot process, enter option 10 ("Set Onboard Key Manager recovery secrets.") at the boot menu prompt. You will need to have the cluster passphrase and a copy of the output from the "security key-manager backup show" command. If the boot menu recovery process fails again, contact NetApp technical support.

Syslog Message

Import of the Onboard Key Manager (OKM) hierarchy has failed: %s. Additional information: %s.

Parameters

failure_msg (STRING): Message describing which operation failed.
additional_msg (STRING): Additional information regarding the failure.

crypto.ssal events

crypto.ssal.failed

Severity

ALERT

Description

This message occurs when a Secure Storage Access Layer(SSAL) operation fails. This might cause import of the onboard key hierarchy to fail and might result in a temporary loss of access to any data secured using the SSAL.

Corrective Action

(Call support).

Syslog Message

SSAL operation failed: %s. %s

Parameters

failure_msg (STRING): Message describing which operation failed.
additional_msg (STRING): Additional information regarding the failure.

crypto.ssal.tpm.clear

Severity

NOTICE

Description

This message occurs when a Trusted Platform Module(TPM) clear operation is performed successfully. A TPM clear operation can happen while reverting to a previous release or when the "security tpm clear" command was executed. A TPM clear operation clears out the TPM and resets it with a new seed for the TPM's storage hierarchy.

Corrective Action

(None).

Syslog Message

A TPM clear operation has been completed successfully.

Parameters

(None).

crypto.ssal.tpm.reset

Severity

NOTICE

Description

This message occurs when a Trusted Platform Module(TPM) reset operation is performed successfully. A TPM reset operation can happen when the node boots up for the first time or when the "security tpm reset" command was executed. A TPM reset operation clears out the TPM and resets it with a new seed for the TPM's storage hierarchy. The TPM then generates a new primary key under the same hierarchy and makes it persistent.

Corrective Action

(None).

Syslog Message

A TPM reset operation has been completed successfully.

Parameters

(None).

cs events

cs.create events

cs.create.inprogress

Severity

ALERT

Description

This message occurs when there is an attempt to release SnapMirror resources for a volume as a result of volume delete while a Cloud Snapshot create operation is in progress.

Corrective Action

Ensure no Cloud Snapshot create opeartion is in-progress when the volume is deleted. Either abort the create operation or wait for the creation to complete before deleting the volume.

Syslog Message

Failed to delete the volume "%s" as one or more Cloud Snapshot operations are in progress. Number of Cloud Snapshot operations in progress: "%d".

Parameters

volumeUUID (STRING): UUID of the volume.
in_transfer_snap_count (INT): Number of Cloud Snapshot create in-progress.

cs.endpoint events

cs.endpoint.has.no.snapshots

Severity

ALERT

Description

This message occurs when volume delete operations attempts to clean-up snapmirror resources and finds that there are no cloud snapshots associated with the volume. The cloud endpoint is automatically deleted on deletion of last cloud snapshot. So it's unusual to find a cloud snapshot endpoint with no snapshots.

Corrective Action

(None).

Syslog Message

The volume "%s" has no cloud snapshots associated with it.

Parameters

volumeUUID (STRING): UUID of the volume.

csm events

csm.badauthaccess events

csm.badAuthAccess

Severity

NOTICE

Description

This message occurs when a blade fails an attempt to authenticate as a given peer cluster, and Cluster Session Manager (CSM), which establishes and manages SpinNP sessions between blades in the cluster, denies access of the unauthenticated blade. This could indicate that an interloper is attempting to gain access to the cluster.

Corrective Action

(None).

Syslog Message

Access as peer cluster %s was claimed from network address %s, but has not been granted because %s.

Parameters

clusterUuid (STRING): UUID of the cluster to which the blade claimed to belong.
addrstr (STRING): Remote network address of the blade.
msg (STRING): Reason that access could not be authenticated.

csm.badconnection events

csm.badConnection

Severity

ALERT

Description

This message occurs when ONTAP® software receives a Cluster Session Manager (CSM) connection with unrecognizable content. This might indicate that the system is under attack. As a precaution, the connection used to receive that data has been closed.

Corrective Action

Carefully inspect the networking configuration, event messages, and logs of both the local and remote nodes. If any evidence exists of an intrusion attempt, configure site networking equipment to avoid forwarding data to the local address and port, and if necessary, from forwarding data from the remote address and port. Check external site security tools for unauthorized access attempts. Audit site security logs.

Syslog Message

ONTAP received a CSM connection with unrecognizable content at local address %s local port %d, from remote address %s remote port %d, via IPspace %d.

Parameters

> **localAddr** (STRING): Full internet address of the local end of the connection.
> **localPort** (INT): Local port number.
> **remoteAddr** (STRING): Full internet address of the remote end of the connection.
> **remotePort** (INT): Remote port number.
> **IPspace** (INT): Identifier of the IPspace within which the remote address was reached.

csm.badplainaccess events

csm.badPlainAccess

Severity

> NOTICE

Description

> This message occurs when a blade attempts to access the local cluster without encrypting its communication channel, and Cluster Session Manager (CSM), which establishes and manages SpinNP sessions between blades in the cluster, denies access of the unencrypted communication channel. This could indicate that an interloper is attempting to gain access to the cluster.

Corrective Action

> (None).

Syslog Message

> Access as peer cluster %s was claimed from network address %s, but has not been granted because it was not using TLS.

Parameters

> **clusterUuid** (STRING): UUID of the cluster to which the blade claimed to belong.
> **addrstr** (STRING): Remote network address of the blade.

csm.ctfallbackactiveopen events

csm.ctFallbackActiveOpen

Severity

> NOTICE

Description

> This message occurs when the Cluster Session Manager (CSM) uses CT (TCP transport) as the default when creating LIF pairs because connections running CSM over remote direct memory access (RDMA) repeatedly fail during successive retry attempts.

Corrective Action

> (None).

Syslog Message

> Cluster Session Manager (CSM) could not successfully create the RDMA connections for session "%s" even after several retry attempts. CSM will use TCP connections as defaults.

Parameters

uniquifier (STRING): Unique identifier for this session.

csm.ctfallbackswitchless events

csm.ctFallbackSwitchless

Severity

NOTICE

Description

This message occurs when the Cluster Session Manager (CSM) defaults to use CT (TCP transport) when creating LIF pairs because remote device ID information is not available on switchless clusters running CSM over remote direct memory access (RDMA).

Corrective Action

(None).

Syslog Message

Cluster Session Manager (CSM) could not determine the cluster ports that are directly connected between the switchless cluster nodes to create the RDMA connections for session "%s". CSM will use TCP connections as defaults.

Parameters

uniquifier (STRING): Unique identifier for this session.

csm.homeportinfounexpected events

csm.homePortInfoUnexpected

Severity

NOTICE

Description

This message occurs when the Cluster Session Manager (CSM) establishes a connection between nodes over the cluster network interface of a switchless cluster and detects that the logical interface's (LIF's) home port and the corresponding remote device information are not the expected values.

Corrective Action

This message can occasionally happen during normal operations on a system startup or a LIF migration event. If the message repeats every few minutes, it might indicate a problem in the cluster interface configuration or the physical cabling of the switchless cluster.

Syslog Message

CSM reports unexpected information for cluster LIF ID "%d" (home port: "%s", remote device ID: "%s").

Parameters

vifId (INT): ID of the local cluster LIF over which the connection gets established.
homePort (STRING): Home port hosting the LIF.
remoteDeviceId (STRING): Remote device associated with the home port.

csm.mismatchremotedevice events

csm.mismatchRemoteDevice

Severity

ERROR

Description

The message occurs when the Cluster Session Manager (CSM) establishes a connection between nodes over the cluster network interface, but the node's remote device IDs do not match.

Corrective Action

Ensure that the Cisco Discover Protocol (CDP) is running on the nodes and switches. In addition, ensure that the cluster ports are up and the cluster LIFs are configured and hosted according to the suggested cluster configuration.

Syslog Message

CSM connection between source LIF %d and destination address %s might not be optimal for session %s. The source is currently connected to %s remote device and the destination is currently connected to %s remote device.

Parameters

sourceLIF (INT): Source logical interface.
destAddr (STRING): Destination IP address.
uniquifier (STRING): Unique identifier for this session.
sourceRemoteDevice (STRING): Remote device associated with the source logical interface.
destRemoteDevice (STRING): Remote device associated with the destination IP address.

csm.nomemory events

csm.noMemory

Severity

ERROR

Description

This message occurs when the memory allocator temporarily runs out of memory that can be allocated or when the entire node has an insufficient amount of free system memory. If the issue persist, the cluster session manager (CSM) might not be able to create connections to remote cluster nodes to serve data traffic.

Corrective Action

If the condition persists, contact NetApp technical support.

Syslog Message

CSM was unable to process events due to insufficient free memory.

Parameters

filename (STRING): Name of the file where the event occurred.
lineno (INT): Line number where the event occurred.

csm.rdmarecoveractiveopen events

csm.rdmaRecoverActiveOpen

Severity

NOTICE

Description

This message occurs when the Cluster Session Manager (CSM) attempts to restore the use of the preferred remote direct memory access (RDMA) transport for the eligible sessions because the condition which triggered the CSM to use CT (TCP transport) as default might have resolved.

Corrective Action

(None).

Syslog Message

Cluster Session Manager (CSM) is attempting to restore the use of the preferred RDMA connections for eligible sessions, which had previously defaulted to use TCP connections due to repeated active open failures.

Parameters

(None).

csm.rdmarecoverswitchless events

csm.rdmaRecoverSwitchless

Severity

NOTICE

Description

This message occurs when the Cluster Session Manager (CSM) attempts to restore the use of the preferred remote direct memory access (RDMA) transport for the eligible sessions because the condition which triggered the CSM to use CT (TCP transport) as default might have been resolved in the switchless cluster.

Corrective Action

(None).

Syslog Message

Cluster Session Manager (CSM) is attempting to restore the use of the preferred RDMA connections for eligible sessions, which had previously defaulted to use TCP connections in the switchless cluster.

Parameters

(None).

csm.unmarshallerror events

csm.unmarshallError

Severity

ERROR

Description

The message occurs when the Cluster Session Manager (CSM) fails to unmarshal a packet.

Corrective Action

Unmarshal errors reported in CSM indicate corrupted packet(s) were delivered to CSM. Often this can be attributed to network layer problems. TCP checksum errors should be checked for if unmarshal errors continue to increment.

Syslog Message

Cluster Session Manager (CSM) failed to unmarshall packet for session %s.

Parameters

sessionId (STRING): Full session ID of this session.

ctl events

ctl.ctlbe events

ctl.ctlbe.IOInternalError

Severity

ERROR

Description

IO failure due to internal error

Corrective Action

The command failure associated with the device specified in this event is caused by some internal error.

Syslog Message

Device Serial Number %s - Internal error reason: %s - SCSI error : %s

Parameters

devSerial (STRING): Device Serial Number
reason (STRING): Internal error
scsiError (STRING): SCSI error code

ctl.ctlbe.lunCreationFailed

Severity

ERROR

Description

LUN creation failed in the CAM target layer.

Corrective Action

The creation of a CAM target end point for the LUN failed. This will cause the disk or partition to not be exported to the DR cluster, and therefore cannot be used for storage mirroring.

Syslog Message

LUN %d - endpoint creation failed, reason: %s

Parameters

lunId (INT): The LUN ID
errorString (STRING): Description of the error

ctl.ctlbe.lunError

Severity

ERROR

Description

The LUN has been deleted or is not configured properly

Corrective Action

The command failure associated with the device specified in this event is caused by the device being not configured or in error state. The device may be in the process of being deleted or the path to this device may not be accessible. Check the state of the device.

Syslog Message

Device Serial Number %s - Device is not configured or in error state - SCSI error : %s - LUN flags : 0x%x

Parameters

devSerial (STRING): Device Serial Number
scsiError (STRING): SCSI error code
lunFlags (INT): Internal CTL Backend LUN flags

ctl.ctlbe.lunNotConfigured

Severity

ERROR

Description

The LUN is not configured

Corrective Action

The command failure associated with the device specified in this event is caused by the device not being configured. Check the state of the device.

Syslog Message

Device Serial Number %s - Device is not configured - SCSI error : %s

Parameters

devSerial (STRING): Device Serial Number
scsiError (STRING): SCSI error code

ctl.session events

ctl.session.stateChanged

Severity

NOTICE

Description

This message occurs when iSCSI CAM target layer session status is changed.

Corrective Action

If the identified iSCSI CAM target layer session is experiencing unexpected events (disconnecting, reconnecting, or connected), examine the link for excessive errors or latency.

Syslog Message

iSCSI CAM target layer's session state is changed to %s for the initiator %s (address: %s). %s

Parameters

ctl_session_state (STRING): New iSCSI CAM target layer session state.

ctl_initiator (STRING): iSCSI CAM target layer initiator's name.

ctl_initiator_address (STRING): iSCSI CAM target layer initiator's address.

ctl_session_state_change_reason (STRING): Reason for the iSCSI CAM target layer session state change.

ctl_timeout_value (INT): iSCSI CAM target layer timeout value.

ctran events

ctran.disabled events

ctran.disabled

Severity

INFORMATIONAL

Description

This message occurs when Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN) subsystem is disabled.

Corrective Action

This happens only when the local node went out of CLAM quorum. Take the corrective action specified in EMS_clam_node_ooq event.

Syslog Message

CTRAN subsystem is now disabled.

Parameters

(None).

ctran.enabled events

ctran.enabled

Severity

INFORMATIONAL

Description

This message occurs when Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN) subsystem is enabled.

Corrective Action

No action is needed.

Syslog Message

CTRAN subsystem is now enabled.

Parameters

(None).

ctran.gbuf events

ctran.gbuf.alloc.unsuccessful

Severity

NOTICE

Description

This message occurs when one or more attempts to allocate a message buffer to convey messages between nodes for the Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN) has been unsuccessful.

Corrective Action

If this message occurs more than 10 times in a hour KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using, "autosupport invoke -node * -message "ctran.gbuf.alloc.unsuccessful" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.gbuf.alloc.unsuccessful" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

Attempt to allocate a message buffer for CTRAN has been unsuccessful. Total number of unsuccessful attempts is %u.

Parameters

attempts_failed (LONGINT): Total number of message buffer allocation attempts that have been unsuccessful.

ctran.gc events

ctran.gc.proposal.stuck

Severity

EMERGENCY

Description

This message occurs when the Cluster Transaction Manager (CTRAN) Group Coordinator (GC) of a group runs a prop-done probe for a proposal longer than anticipated.

Corrective Action

KCS CTRAN logs need to be collected for further analysis. Trigger an ALL AutoSupport® message by using the "autosupport invoke -node * -message "ctran.gc.proposal.stuck" -type all" command. Also trigger a diagnostic AutoSupport by using the "autosupport invoke-diagnostic -node * -message "ctran.gc.proposal.stuck" -subsystem kcs" command. Then contact NetApp technical support support.

Syslog Message

CTRAN group %s has attempted a prop_done probe %d times against gm_id %ld on node %s with UUID %s for txn %ld with opcode %d.

Parameters

group_name (STRING): Name of the group being polled.
attempts (LONGINT): Number of attempts.
gm_id (LONGINT): Group member (GM) ID.
node_name (STRING): Name of the node the GM resides on.
node_uuid (STRING): UUID of the node the GM resides on.
trans_id (LONGINT): ID of the stuck transaction.
opcode (INT): Operation type of the stuck transaction.

ctran.gc.reselection.failed

Severity

ALERT

Description

This message occurs when some Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN) groups lose their Group co-ordinator (GC) and a subsequent GC reselection process fails to complete.

Corrective Action

Reboot the node, and if the node is waiting for giveback then perform a giveback.

Syslog Message

CTRAN GC Reselection failed on local node (name=%s, id=%llu).

Parameters

localhostname (STRING): The host name of the local node.
localnodeid (LONGINT): The node ID of the local node.

ctran.group events

ctran.group.reset.failed

Severity

EMERGENCY

Description

This message occurs when an attempt to reset a group by Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN) fails.

Corrective Action

KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using "autosupport invoke -node * -message "ctran.group.reset.failed" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.group.reset.failed" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

Group reset for %s has failed on node %s.

Parameters

localhostname (STRING): The host name of the local node.
group_name (STRING): The group on which the group reset operation is attempted.

ctran.jpc events

ctran.jpc.assigned

Severity

INFORMATIONAL

Description

This message occurs when a Join Proposal Coordinator (JPC) node is assigned by Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN).

Corrective Action

(None).

Syslog Message

Cluster node (name=%s, ID=%llu) is the Join Proposal Coordinator (JPC) node.

Parameters

nodename (STRING): Host name of the JPC node.
node_id (LONGINT): Node id of the JPC node.

ctran.jpc.multiple.nodes

Severity

EMERGENCY

Description

This message occurs when multiple Join Proposal Coordinator (JPC) nodes for the Cluster Transaction Manager (CTRAN) are detected.

Corrective Action

KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using, "autosupport invoke -node * -message "ctran.jpc.multiple.nodes" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.jpc.multiple.nodes" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

Cluster node %u detected multiple JPC nodes (node %u reports JPC %u, node %u reports JPC %u)

Parameters

local_node_id (LONGINT): ID of the local node.
src_node_id_1 (LONGINT): ID of the first node reporting a JPC.
jpc_node_id_1 (LONGINT): ID of the JPC node reported by src_node_id_1.
src_node_id_2 (LONGINT): ID of the second node reporting a JPC.
jpc_node_id_2 (LONGINT): ID of the JPC node reported by src_node_id_2.

ctran.jpc.not.found

Severity

EMERGENCY

Description

This message occurs when this node cannot find a a Join Proposal Coordinator (JPC) within the cluster for Kernel Cluster Services (KCS) Cluster Transaction Manager (CTRAN). Until this error is resolved the reporting node will not be able to participate in distributed operations.

Corrective Action

Perform a planned takeover/giveback sequence to reset the reporting node non-disruptively by using the "takeover -ofnode (reporting node)" and "giveback -ofnode (reporting node)" commands. If the error

message is still seen KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using, "autosupport invoke -node * -message "ctran.jpc.not.found" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.jpc.not.found" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

This node was unable to locate a Join Proposal Coordinator (JPC) node.

Parameters

(None).

ctran.jpc.valid.failed

Severity

EMERGENCY

Description

This message occurs when the Join Proposal Coordinator (JPC) validation fails due to an inconsistent state of some of the Cluster Transaction Manager (CTRAN) group members following a JPC reselection event. In some cases, this can result in loss of SAN data access, CLI command failures and/or giveback failures.

Corrective Action

Reset the CTRAN subsystem during a maintenance window by placing the node specified ineligible by using "cluster modify -node (node reporting error) -eligibility false". Once complete return the node to serivce by entering "cluster modify -node (node reporting error) -eligibility true". Note, making a node ineligible impacts all protocols on that node. During the time that a node is ineligible, it will not serve any data. If a non-disruptive resolution is desired, takeover the reporting node by using "takeover -of-node (reporting-node)", and then returning it to service by "giveback -of-node (reporting-node)" when it is ready. If the error is still seen KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using "autosupport invoke -node * -message "ctran.jpc.valid.failed" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.jpc.valid.failed" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

CTRAN JPC validation failed on local node (name=%s, id=%llu, num_groups=%llu).

Parameters

localhostname (STRING): Host name of the local node.
localnodeid (LONGINT): Node ID of the local node.
numgroups (LONGINT): Number of inconsistent groups.

ctran.net events

ctran.net.unreachable

Severity

ALERT

Description

This message occurs when the Cluster Transaction Manager (CTRAN) on the local node is unable to reach a peer node that it believes is in CLAM quorum.

Corrective Action

Check all cluster interfaces on the node initiating this error message and the peer node specified in the message. * Ensure all interfaces are in up state with "network interface show -role cluster". * Ensure that each node initiating this message can reach their peer node with "cluster ping". * Check the cluster interconnect switches and correct any issues found with the health or configuration found. If the error still persists KCS CTRAN logs will need to be collected for further analysis. Trigger an ALL autosupport by using, "autosupport invoke -node * -message "ctran.net.unreachable" -type all", a diagnostic autosupport by using "autosupport invoke-diagnostic -node * -message "ctran.net.unreachable" -subsystem kcs" and contact NetApp technical support support.

Syslog Message

Node %s (id=%llu) is unable to reach peer node %s (id=%llu) on connection %s (ACN=0x%016llx).

Parameters

local_node_name (STRING): Node name of the local node.
local_node_id (LONGINT): Node ID of the local node.
peer_node_name (STRING): Node name of the unreachable peer node.
peer_node_id (LONGINT): Node ID of the unreachable peer node.
connection (STRING): Name of connection that is unreachable.
acn (LONGINTHEX): The ACN value.

ctrl events

ctrl.link events

ctrl.link.degraded

Severity

ERROR

Description

This message occurs when the software detects either symbol errors or out-of-sequence errors on HA interconnect links.

Corrective Action

If possible, replace the degraded interconnect cables and reenable automatic switchover by using the "options -option-name rdma.link_monitor -option-value on" command. If the problem persists after replacing both interconnect cables, replace the interconnect hardware on both nodes.

Syslog Message

Link errors detected on card in slot %d. Number of symbol errors (Port1:Port2): %d:%d; Number of OOS errors(RQ:SQ): %d:%d.

Parameters

slot (INT): Slot number of the HA Interconnect device.
sym_err1 (INT): Symbol errors on the first port.
sym_err2 (INT): Symbol errors on the second port.
rq_oos (INT): Out-of-sequence errors on the receive queue.
sq_oos (INT): Out-of-sequence errors on the send queue.

ctrl.link.switchover

Severity

INFORMATIONAL

Description

This message occurs when the software initiates a switchover of the active interconnect link, which has been declared degraded.

Corrective Action

If possible, replace the degraded interconnect cable and reenable the automatic switchover by using the "options -option-name rdma.link_monitor -option-value on" command. If the problem persists after replacing both the interconnect cables, replace the interconnect hardware on both nodes.

Syslog Message

Link switchover initiated to switch active interconnect link %s.

Parameters

degraded_port_name (STRING): Port name of the degraded link that is being switched from.

ctrl.rdma events

ctrl.rdma.badSystemId

Severity

NOTICE

Description

This message occurs when an invalid system ID is found.

Corrective Action

(None).

Syslog Message

Invalid system ID %d. High-availability interconnect might not work properly.

Parameters

name (INT): Invalid system ID value.

ctrl.rdma.heartBeat

Severity

INFORMATIONAL

Description

This message logs heartbeat messages.

Corrective Action

(None).

Syslog Message

HA interconnect: %s.

Parameters

hb (STRING): Heartbeat string.

ctrl.rdma.partnerOK

Severity

INFORMATIONAL

Description

This message occurs when the partner resumes from pause state.

Corrective Action

(None).

Syslog Message

Partner node (system ID: %lld IP address: %s) has resumed from pause state.

Parameters

    sysid (LONGINT): Partner system ID.
    ipaddr (STRING): Partner IP address.

ctrl.rdma.partnerPause

Severity

    INFORMATIONAL

Description

    This message occurs when the partner enters pause state.

Corrective Action

    (None).

Syslog Message

    Partner node (system ID: %lld IP address: %s) has entered pause state.

Parameters

    sysid (LONGINT): Partner system ID.
    ipaddr (STRING): Partner IP address.

ctrl.rdma.portStateChange

Severity

    INFORMATIONAL

Description

    This message occurs when the state of the HA interconnect link changed frequently in the last hour.

Corrective Action

    Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. When one link is down on platforms with two available links, HA link redundancy is lost. However, HA services are still working and enabled on the secondary link.

Syslog Message

    HA interconnect: Link to %s changed state %d times in the last hour.

Parameters

    ip (STRING): IP address of the peer.
    num_times (INT): Number of times the state changed.

daasync events

daasync.capacity events

daasync.capacity.changed

Severity

    NOTICE

Description

    This message occurs when the capacity data of a target device changes.

Corrective Action

    (None).

Syslog Message

    Capacity data has changed for device path %s with target address %s.

Parameters

    path (STRING): Device path.
    targ_addr (STRING): Target address.

daasync.inquiry events

daasync.inquiry.changed

Severity

    NOTICE

Description

    This message occurs when the inquiry data of a target device changes.

Corrective Action

    (None).

Syslog Message

    Inquiry data has changed in path %s with target address %s.

Parameters

    path (STRING): Device path.
    targ_addr (STRING): Target address.

daasync.periph events

daasync.periph.alloc.fail

Severity

    ERROR

Description

This message occurs when the system cannot attach a drive.

Corrective Action

Use the "disk show -fields vmdisk-target-address" command to get the list of drives that are visible to the system and to verify that the missing drive is connected properly.

Syslog Message

Unable to attach new device %s due to status 0x%x.

Parameters

device_name (STRING): Drive name.
status (INTHEX): Status of the system.

daregister events

daregister.periph events

daregister.periph.lost

Severity

ERROR

Description

This message occurs when a peripheral device is lost during registration.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

Lost peripheral device during registration in path %s with respect to target address %s.

Parameters

path (STRING): Device path.
targ_addr (STRING): Target address.

dbs events

dcs events

dcs.framework events

dcs.framework.disabled

Severity

NOTICE

Description

This message occurs when the DCS framework has been disabled on this node. This node will not allow any updates to any counters stored in the DCS framework on this node. However, the values for existing counters may be retrieved for display purposes.

Corrective Action

(None).

Syslog Message

The DCS framework is disabled on this node.

Parameters

(None).

dcs.framework.enabled

Severity

INFORMATIONAL

Description

This message occurs when the DCS framework has been enabled on this node.

Corrective Action

(None).

Syslog Message

The DCS framework is enabled on this node.

Parameters

(None).

dev events

dev.driver events

dev.driver.throttling

Severity

NOTICE

Description

This message occurs when an I/O driver is throttling I/O requests because the underlying controller is overloaded with I/O requests.

Corrective Action

(None).

Syslog Message

%s driver unit %d throttling I/O requests due to %s.

Parameters

devname (STRING): Name of the device.
unit (INT): Unit number of the controller.
reason (STRING): Reason for throttling.
current_throttle_sendq (INT): Current throttle value for send requests
lowest_throttle_sendq (INT): Lowest throttle value for send requests

dev.path events

dev.path.inquiry.failed

Severity

ERROR

Description

This message occurs when the system fails to discover the drive.

Corrective Action

Use the "disk show -fields vmdisk-target-address" command to get the list of drives that are visible to the system and to verify that the missing drive is connected properly.

Syslog Message

Failed to discover drive (device name:%s%d).

Parameters

periph_name (STRING): Drive name.
unit_no (INT): Drive unit number.

device events

device.install events

device.install.successful

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP® successfully installs one or more devices after a prior installation failure.

Corrective Action

(None).

Syslog Message

Device type %s installation successful for one or more devices that reported installation failure previously.

Parameters

devtype (STRING): SCSI device type.

device.latency events

device.latency.threshold

Severity

NOTICE

Description

This message occurs when a device exceeds the latency threshold for the 30- second monitoring period. The event provides the name of the device, the target device (if applicable), the current threshold value, the average execution latency, and total latency for this period. The event also displays the number of I/O operations for the period, which is used to calculate latency.

Corrective Action

Contact your hypervisor provider if this issue persists. This usually indicates undersized storage in terms of allowed operations per second.

Syslog Message

The device latency in microseconds exceeded the threshold value for device "%s%d" and the associated target device "%s". The threshold is "%d", execution latency is "%d", total latency is "%d", and the number of operations for this period is "%d".

Parameters

devname (STRING): Name of the device. The device name can be "isl" (local to this node), "isp" (local to the partner node) or "ism" (the mediator with no associated target device), which represents the ISCSI name. Any other device name will be the name of the actual target device. If the device name is not "isl", or "isp", or the target device name, the name will always be "n/a".
unit (INT): Unit number of the device.

target_dev (STRING): Name of the target device. The name will be the target (end point) device name if the device name is either "isl" or "isp". Otherwise it is the actual underlying device on this node.
threshold (INT): Monitoring threshold in microseconds.
exec_lat (INT): Execution latency in microseconds for this period.
total_lat (INT): Total latency in microseconds for this period.
num_operations (INT): Number of I/O operations for this period.

device.max events

device.max.count.exceeded

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot install one or more discovered devices since the device type count is at full capacity.

Corrective Action

If possible, remove an existing device of the same type so that device installation can proceed. If the failure persists, contact NetApp technical support.

Syslog Message

Unable to install one or more %s devices discovered on initiator port %s, target port WWNN: %s, WWPN: %s. The device limit (%d) has been reached.

Parameters

devtype (STRING): SCSI device type.
adapter (STRING): Name of the initiator port discovering the device(s).
wwnn (STRING): World Wide Node Name of the target port exporting the device(s).
wwpn (STRING): World Wide Port Name of the target port exporting the device(s).
limit (INT): Device maximum count.

dfu events

dfu.badbridgeshelfconfig events

dfu.badBridgeShelfConfig

Severity

ERROR

Description

This message occurs when the disk firmware update aborts because it cannot contact the two peer FC-to-SAS bridges.

Corrective Action

Make sure that the storage controller is correctly cabled to the two peer FC-to-SAS bridges and that the bridges are correctly cabled to the SAS disk shelves. Then retry the 'disk_fw_update' command.

Syslog Message

Error contacting two peer FC-to-SAS bridges. Unable to download firmware to disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.clusterdisknotready events

dfu.clusterDiskNotReady

Severity

ERROR

Description

This message occurs when the controller failover partner reports that a disk selected for download is in the NOT READY state.

Corrective Action

Only disks in the READY state can be downloaded to. If a disk is in the NOT READY state, it indicates that the disk has probably failed for some reason and should be returned for RMA.

Syslog Message

Controller failover partner reports disk as NOT READY. Unable to download firmware to disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.

productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.clustericdown events

dfu.clusterIcDown

Severity

ERROR

Description

This message occurs when the high-availability (HA) interconnect is not available.

Corrective Action

The HA interconnect was not functional. Make sure that controller failover is enabled. Check that the HA interconnect cables are connected properly, and if applicable (based on the HA interconnect type), that the SFPs (Small Form-Factor Pluggables) are seated properly on both controllers.

Syslog Message

HA interconnect not available (cf disabled?). Unable to download firmware to disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.clustericerror events

dfu.clusterIcError

Severity

ERROR

Description

This message occurs when communication with the controller failover partner cannot be established.

Corrective Action

Typically, these errors are related to cable or transmission errors from the HA interconnect. Check that the HA interconnect cables are connected properly, and if applicable (based on the HA interconnect type), that the SFPs (Small Form-Factor Pluggables) are seated properly on both controllers.

Syslog Message

HA interconnect error %d encountered. Unable to download firmware to disk %s [%s %s %s] S/N [%s].

Parameters

clusterError (INT): High-availability (HA) interconnect error number.
diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.

productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.clusterpartner events

dfu.clusterPartner

Severity

ERROR

Description

This message occurs when automatic firmware download is performed as part of system boot and partner disks are downrev.

Corrective Action

Firmware download is not allowed to update partner disks automatically. Manual invocation of the "storage disk firmware update" command is required. See the "storage disk firmware update" man page for details.

Syslog Message

Operator must issue disk_fw_update command to download firmware to partner Disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.clustertakeover events

dfu.clusterTakeover

Severity

ERROR

Description

This message occurs when firmware download is attempted while in takeover mode.

Corrective Action

Firmware download is not allowed while in takeover mode. Exit takeover mode and attempt the "storage disk firmware update" command again. See the "storage disk firmware update" man page for details.

Syslog Message

Unable to download firmware while in takeover mode to Disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product id of the disk.

fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.disksizechanged events

dfu.diskSizeChanged

Severity

NOTICE

Description

This message occurs when a size change is detected after a firmware update. This can be either an increase or decrease in physical size of the disk.

Corrective Action

The disk might not be usable any longer by the RAID subsystem because of the size change that occurred. If RAID cannot access the disk any longer, it will be failed and should be returned for RMA. If the disk is still accessible, leaving it in the system is perfectly fine.

Syslog Message

Disk %s [%s %s %s] S/N [%s] size changed (%x:%x %llx:%llx %llx:%llx %llx:%llx %llx:%llx)

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.
oldSectorSize (INTHEX): Old sector size of the disk.
newSectorSize (INTHEX): New sector size of the disk.
oldLastSector (LONGINTHEX): Old right-size of the disk.
newLastSector (LONGINTHEX): New right-size of the disk.
oldDiskBlocks (LONGINTHEX): Old right-sized blocks on the disk.
newDiskBlocks (LONGINTHEX): New right-sized blocks on the disk.
oldRealLastSector (LONGINTHEX): Old raw size of the disk.
newRealLastSector (LONGINTHEX): New raw size of the disk.
oldRealDiskBlocks (LONGINTHEX): Old raw blocks on the disk.
newRealDiskBlocks (LONGINTHEX): New raw blocks on the disk.

dfu.firmwaredownloading events

dfu.firmwareDownloading

Severity

INFORMATIONAL

Description

This message occurs when firmware is being downloaded for a specific product ID of disks on the system.

Corrective Action

(None).

Syslog Message

Now downloading firmware file %s on %d disk(s) of plex [%s]…

Parameters

file (STRING): Firmware file which is being downloaded.
diskcount (INT): Number of disks being downloaded to.
plex (STRING): Plex name being downloaded to.

dfu.firmwaredownrev events

dfu.firmwareDownrev

Severity

ERROR

Description

This message occurs when the system finds disks with a downrev version of firmware, as defined by the installed version of Data ONTAP®.

Corrective Action

Use the "storage disk firmware update" command to update the downrev firmware on the disks. Check your support provider for more information about obtaining the latest disk firmware. If the problem persists, contact NetApp technical support.

Syslog Message

Downrev firmware on %d disks.

Parameters

downrev (INT): Number of disks with downrev firmware.

dfu.firmwareuptodate events

dfu.firmwareUpToDate

Severity

NOTICE

Description

This message occurs when all eligible disks are determined to be updated to the latest version of firmware available on the system.

Corrective Action

(None).

Syslog Message

Firmware is up-to-date on all eligible disks.

Parameters

(None).

dfu.fwdownloadfailedmultfiles events

dfu.fwDownloadFailedMultFiles

Severity

ERROR

Description

This message occurs when more than one file is found for downloading to an ATA drive. Because there is no version string control, only one file at a time is allowed on the system.

Corrective Action

Two or more firmware files were found for download. Delete all except the one that should be downloaded to the drive. Background firmware update should download on the next check cycle.

Syslog Message

Download failed due to multiple firmware files found for Disk type [%s %s].

Parameters

vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.

dfu.fwdownloadfailedstatus events

dfu.fwDownloadFailedStatus

Severity

ERROR

Description

This message occurs when a firmware download failure occurs.

Corrective Action

Decode sense codes based on drive supplier to determine the reason for the failure. Most situations can be recovered by attempting to download firmware again using the "disk_fw_update" command. See the disk_fw_update man page for complete details.

Syslog Message

Status: (0x%x/0x%x/0x%x) (SCSI sense 0x%x/0x%x/0x%x/0x%x)

Parameters

OpStatus (INTHEX): Status of the passthru I/O.
HostStatus (INTHEX): Host Status of the passthru I/O.
TargetStatus (INTHEX): Target Status of the passthru I/O.
sense_key (INTHEX): SCSI Sense key.
sense_code (INTHEX): SCSI Sense Code.
sense_code_qualifier (INTHEX): SCSI Sense Code Qualifier.

fru (INTHEX): SCSI Sense Code FRU identifier.

dfu.fwdownloadfailedwbuf events

dfu.fwDownloadFailedWbuf

Severity

ERROR

Description

This message occurs when retries are exhausted on the write buffer command that is used to download firmware to a disk.

Corrective Action

Disk firmware might still need to be updated. See the disk_fw_update man page for complete details on performing this.

Syslog Message

Write buffer command failed to Disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.init events

dfu.init.noMemory

Severity

ERROR

Description

This message occurs when the disk firmware update initialization routine cannot allocate memory.

Corrective Action

Memory allocation relies on the availability of memory resources in the system. If possible, reduce the workload so that fewer resources are needed. If the failure persists after reducing the workload, contact NetApp technical support.

Syslog Message

Could not allocate memory for disk firmware update. Requested size=%d bytes.

Parameters

size (INT): Size (in bytes) of the memory allocation request.

dfu.mallocfailed events

dfu.mallocFailed

Severity

ALERT

Description

This message occurs when Data ONTAP® cannot allocate memory to read the disk firmware file and aborts the disk firmware update.

Corrective Action

Inability to allocate memory for this action indicates a failure within Data ONTAP. Take a core for reference, and then open a support case to address the underlying issue. The reboot process when you take the core resolves the immediate problem.

Syslog Message

Cannot allocate memory to read disk firmware file %s; disk firmware update aborted.

Parameters

filename (STRING): Name of the disk firmware file.

dfu.nomemory events

dfu.noMemory

Severity

ERROR

Description

This message occurs when the disk firmware update routine cannot allocate memory to update the disk firmware.

Corrective Action

Memory allocation relies on the availability of memory resources in the system. If possible, reduce the workload so that fewer resources are needed. Rebooting the system can recover memory resources that might have been lost. If the failure persists after reducing the workload and rebooting, contact NetApp technical support for assistance in determining whether additional system memory is indicated.

Syslog Message

Could not allocate memory for disk firmware update. Unable to download firmware to disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Name of the vendor of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.readtestfailed events

dfu.readTestFailed

Severity

ERROR

Description

This message occurs when a read of the disk fails after downloading firmware to a disk.

Corrective Action

Disk was unable to be read from after a firmware update occurred. I/O will be retried. If the retries are not successful, you should fail the disk and return it for RMA.

Syslog Message

Media Access test failed on Disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.readTestFailed.fatal

Severity

ERROR

Description

This message occurs when a read of the disk fails after downloading firmware to a disk and all retries have been exhausted.

Corrective Action

Disk was unable to be read from after a firmware update occurred. I/O will be retried. If the retries are not successful, you should fail the dise and return it for RMA.

Syslog Message

Unable to access media after firmware update on Disk %s [%s %s %s] S/N [%s].

Parameters

diskName (STRING): Name of the disk.
vendorName (STRING): Vendor name of the disk.
productId (STRING): Product ID of the disk.
fwVersion (STRING): Firmware version of the disk.
serialno (STRING): Serial number of the disk.

dfu.readtestfailedstatus events

dfu.readTestFailedStatus

Severity

ERROR

Description

This message occurs when a read test failure occurs after a firmware download.

Corrective Action

Decode sense codes based on drive supplier to determine the reason for the failure. Most situations can be recovered by the system automatically retrying the I/O operation.

Syslog Message

Status: (0x%x/0x%x/0x%x) (SCSI sense 0x%x/0x%x/0x%x/0x%x)

Parameters

OpStatus (INTHEX): Status of the read I/O.
HostStatus (INTHEX): Host Status of the read I/O.
TargetStatus (INTHEX): Target Status of the read I/O.
sense_key (INTHEX): SCSI Sense key.
sense_code (INTHEX): SCSI Sense Code.
sense_code_qualifier (INTHEX): SCSI Sense Code Qualifier.
fru (INTHEX): SCSI Sense Code FRU identifier.

dfu.refreshinquiryfailed events

dfu.refreshInquiryFailed

Severity

ERROR

Description

This message occurs after a successful disk firmware update, when the 'SCSI inquiry' command, which is issued to all disks as part of the disk firmware download process, fails to finish. It is also possible to get messages indicating that disks have downrev firmware.

Corrective Action

When this error happens, check the connection to the partner node and manually retry the firmware download process. If the problem still persists, open a support case to investigate the underlying cause.

Syslog Message

(None).

Parameters

retryCount (INT): Number of times the command was retried and failed.

dfu.suspended_disasterrecovery events

dfu.suspended_DisasterRecovery

Severity

ERROR

Description

This message occurs in a MetroCluster™ environment when firmware download to remote disks is suspended during disaster recovery. This event is signaled at most once during disaster recovery, the first time firmware download to a remote disk is suspended.

Corrective Action

Firmware download to remote disks is suspended during MetroCluster disaster recovery. Wait until switchback has completed, and either allow the firmware to be downloaded automatically, or run the "storage disk firmware update" command. See the "storage disk firmware update" man page for details.

Syslog Message

Suspend firmware download to remote disks while in MetroCluster Disaster Recovery state %s

Parameters

dr_state (STRING): Current MetroCluster disaster recovery state.

diff events

diff.svcs events

diff.svcs.setting.topartner

Severity

ERROR

Description

This message occurs when the system cannot automatically apply the Differentiated Services (diff-svcs) setting to the High Availability (HA) partner. In the event there is a setting mismatch between HA pairs the node with the incorrect setting may produce an incorrect At-Risk-System (ARS) report.

Corrective Action

Manually apply the diff-svcs setting to the HA partner to ensure the setting is consistent across both nodes in the HA pair. In the event of a failure, issue the following command on the HA partner: "system node modify -node nodename -diff-svcs true|false" .

Syslog Message

Differentiated services setting was not automatically applied to the HA partner of node %s: %s.

Parameters

node (STRING): Name of the node where the setting was successfully applied. A failure occurred while trying to apply the same setting to its HA partner.
error (STRING): Error reported when attempting to apply the setting to the HA partner.

dipmon events

director events

discover events

discover.7500 events

discover.7500.supported

Severity

NOTICE

Description

This message occurs when discovery of a 7500N FC-to-SAS bridge is enabled.

Corrective Action

(None).

Syslog Message

FC-to-SAS bridge ATTO 7500N discovery is enabled.

Parameters

(None).

discover.7500.unsupported

Severity

NOTICE

Description

This message occurs when discovery of a 7500N FC-to-SAS bridge is disabled.

Corrective Action

(None).

Syslog Message

FC-to-SAS bridge ATTO 7500N discovery is disabled.

Parameters

(None).

discoveryd events

discoveryd.search events

discoveryd.search.request

Severity

NOTICE

Description

This message occurs when the discoveryd service is contacted during the initial cluster setup phase with an M-SEARCH multicast and a follow up HTTP GET to get the device description document.

Corrective Action

(None).

Syslog Message

The discoveryd service was contacted by a device (IP address: %s) to discover information about this node.

Parameters

client_ip (STRING): IP address of the client machine requesting the discoveryd information.

disk events

disk.adaptererror events

disk.adapterError

Severity

ALERT

Description

This message occurs when an adapter error is detected.

Corrective Action

(None).

Syslog Message

Disk %s: unexpected adapter error 0x%x

Parameters

diskName (STRING): Name of the device.
error (INTHEX): Adapter status.

disk.bdfu events

disk.bdfu.suspended

Severity

ERROR

Description

This message occurs when the background drive firmware update process fails to unlock SAS NetApp® Storage Encryption (NSE) drives in FIPS-compliance mode. The FIPS-certified SAS NSE drives must be unlocked with a valid authentication key before firmware can be downloaded to them. If the number of failed unlock attempts reaches a certain threshold, the drives will be locked out, leading to permanent loss of data in certain conditions. The system will automatically suspend the background drive firmware update for 12 hours, after which it is reenabled.

Corrective Action

Contact NetApp technical support for assistance with restoring valid authentication keys on the drive.

Syslog Message

Background drive firmware update is suspended because FIPS NSE drives cannot be unlocked. Reason: %s.

Parameters

suspend_reason (STRING): Reason for the drive unlock failure.

disk.capacity events

disk.capacity.changed

Severity

NOTICE

Description

This message occurs when a media size change is reported for the underlying storage device. The new size and previous size are measured in 4096-byte blocks.

Corrective Action

(None).

Syslog Message

A storage device reported a size change for device "%s". New size: %llu, previous size: %llu (4096-byte blocks).

Parameters

diskName (STRING): Name of the disk.
new_size (LONGINT): The new size measured in 4096-byte blocks.
previous_size (LONGINT): The previous size measured in 4096-byte blocks.

disk.checksum events

disk.checksum.offlineAdapter

Severity

ALERT

Description

This message occurs when multiple errors are detected during checksum verification. The adapter is taken offline.

Corrective Action

Replace the adapter. Contact Contact NetApp technical support. for assistance with a Return Material Authorization.

Syslog Message

Adapter %s taken offline due to checksum verification failure on multiple disks. Keep the adapter offline and contact Contact NetApp technical support. for assistance.

Parameters

adapterName (STRING): Name of the adapter.

disk.checksum.verifyFailed

Severity

ALERT

Description

This message occurs when disk checksum verify fails.

Corrective Action

(None).

Syslog Message

Disk level checksum verification failed on WRITE VERIFY: Disk %s, Block #%llu: Volume %s, FileId %d, Block #%llu

Parameters

diskName (STRING): Name of the device.
bno (LONGINT): block id
vol (STRING): Volume name.
fileid (INT): File ID.
block (LONGINT): File block ID.

disk.cksum events

disk.cksum.bno.verifyFailed

Severity

ALERT

Description

This message occurs when the system detects a block number mismatch during disk checksum verification. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location.

Corrective Action

(None).

Syslog Message

Block number mismatch on WRITE VERIFY: Disk %s, expected_dbn = %u, stored_dbn = %u, expected_vbn = %llu, stored_vbn = %llu, Volume %s, FileId %d, Block #%llu.

Parameters

diskName (STRING): Name of the device.
expected_dbn (INT): Expected physical disk block number.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
vol (STRING): Volume name.
fileid (INT): File ID.
block (LONGINT): File block ID.

disk.ddr events

disk.ddr.dqp.out.of.date

Severity

NOTICE

Description

This message occurs when the Dynamic Drive Recognition (DDR) Scanner detects a disk that is not part of its qualification table.

Corrective Action

Check your support provider's web site or knowledgebase for more information about downloading and installing an updated Disk Qualification Package (DQP) file.

Syslog Message

The DDR Scanner has detected that the latest DQP is not present on this system.

Parameters

(None).

disk.ddr.invalid.azcs.capacity

Severity

ERROR

Description

This event is generated when the DDR Scanner detects a capacity value that does not match with the alias string associated with it.

Corrective Action

(None).

Syslog Message

The DDR Scanner has detected an invalid AZCS alias capacity on disk %s

Parameters

diskname (STRING): Name of the disk.
capacity_value (LONGINT): The value of the invalid capacity

disk.ddr.invalid.bcs.capacity

Severity

ERROR

Description

This event is generated when the DDR Scanner detects a capacity value that does not match with the alias string associated with it.

Corrective Action

(None).

The DDR Scanner has detected an invalid BCS alias capacity on disk %s

Parameters

>**diskname** (STRING): Name of the disk.
>**capacity_value** (LONGINT): The value of the invalid capacity

disk.ddr.scanner.ddr.failure

Severity

>NOTICE

Description

>This event is issued when a the ddr scanner has failed to read the new DDR label it just placed on the disk.

Corrective Action

>(None).

Syslog Message

>Disk %s Shelf %s Bay %s [%s %s %s] S/N [%s] [%s]: DDR label verify Failure - DDR Error

Parameters

>**disk_name** (STRING): The name of the disk
>**shelf** (STRING): Shelf identifier where the disk is located
>**bay** (STRING): Disk bay within the shelf where disk is located
>**vendor** (STRING): Name of the vendor of the disk
>**model** (STRING): Model string of the disk drive
>**firmware_revision** (STRING): Firmware revision of the disk
>**serialno** (STRING): Serial number of the disk
>**ddr_error** (STRING): DDR Error string which has been parsed

disk.ddr.scanner.label.done

Severity

>NOTICE

Description

>This event is issued when a the ddr scanner has completed has completed scanning a disk successfully

Corrective Action

>(None).

Syslog Message

>Disk %s Shelf %s Bay %s [%s %s %s] S/N [%s] : DDR label write complete

Parameters

>**disk_name** (STRING): The name of the disk
>**shelf** (STRING): Shelf identifier where the disk is located
>**bay** (STRING): Disk bay within the shelf where disk is located
>**vendor** (STRING): Name of the vendor of the disk
>**model** (STRING): Model string of the disk drive

firmware_revision (STRING): Firmware revision of the disk
serialno (STRING): Serial number of the disk

disk.ddr.scanner.verify.failure

Severity

NOTICE

Description

This event is issued when a the ddr scanner has failed to read the new DDR label it just placed on the disk.

Corrective Action

(None).

Syslog Message

Disk %s Shelf %s Bay %s [%s %s %s] S/N [%s] : DDR label verify Failure

Parameters

disk_name (STRING): The name of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision of the disk
serialno (STRING): Serial number of the disk

disk.ddr.scanner.write.failure

Severity

NOTICE

Description

This event is issued when a the ddr scanner has failed to write a new DDR label to the disk

Corrective Action

(None).

Syslog Message

Disk %s Shelf %s Bay %s [%s %s %s] S/N [%s] : DDR label write Failure

Parameters

disk_name (STRING): The name of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision of the disk
serialno (STRING): Serial number of the disk

disk.ddr.unable.add.disk

Severity
ALERT

Description
This event is generated when the DDR Scanner is unable to re-add a disk to the filer after trying for 2 minutes. This means there are no more spare disk_Cbs in the filer.

Corrective Action
(None).

Syslog Message
The filer has not freed a disk_Cb for over 2 mintues for %s.

Parameters
diskuid (STRING): The unique identifier of the disk

disk.diagnostic events

disk.diagnostic.logs.saved

Severity
NOTICE

Description
This message occurs when ONTAP retrieves the diagnostic logs from the disk. The logs are saved at /etc/logs/drive_failure_logs/.

Corrective Action
(None).

Syslog Message
Diagnostic logs retrieved for disk "%s".

Parameters
diskName (STRING): Name of the disk.

disk.duplicate events

disk.duplicate.name

Severity
ERROR

Description
This message occurs when duplicate disk names are detected. This can be caused by corruption of the disk's shelf id or bay number or failure to determine the stack id. There is no known impact to functional systems, but failure to correct this error may result in operations taken on the wrong disk and ambiguity where the disks are referenced.

Corrective Action

If any disk reports a shelf id or bay number not corresponding to its physical location, choose one of the following options: 1. Perform a takeover and giveback of the affected systems. 2. Remove the disk for at least 20 seconds, and then reinsert it. Note: If the disk is part of an aggregate, this option will result in a degraded RAID group and disk reconstruction will be initiated. Otherwise: 1. Verify cabling. 2. Contact NetApp technical support.

Syslog Message

Multiple disks detected with the same name %s. Disks: %s (%s).

Parameters

disk_name (STRING): Name of the disks.
disk_uid_list (STRING): UIDs of disks with the same name.
disk_serialno_list (STRING): Serial numbers of disks with the same name.

disk.dynamicqual events

disk.dynamicqual.fail.parse

Severity

ERROR

Description

This message occurs when dynamic device qualification fails due to an invalid /etc/qual_devices file. The system is unable to properly recognize disk drives or fully enable all resiliency and performance features.

Corrective Action

For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "[disk.dynamicqual.fail.parse]" keyword. Request an updated qual_devices file from NetApp.

Syslog Message

Device qualification information file (/etc/qual_devices) is invalid. The following error, "%s" has been detected. For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "[disk.dynamicqual.fail.parse]" keyword.

Parameters

errorstring (STRING): Error string for parsing error in /etc/qual_devices file.

disk.dynamicqual.failure.cleared

Severity

NOTICE

Description

This message occurs when a previous dynamic device qualification error has been corrected.

Corrective Action

(None).

Syslog Message

Device qualification failure condition has been corrected. All devices have been qualified.

Parameters

(None).

disk.dynamicqual.failure.invalidFile

Severity

ALERT

Description

This message occurs when dynamic device qualification fails due to an invalid /etc/qual_devices file.

Corrective Action

See the qual_devices man page for information about updating device qualification data. Request an updated qual_devices file from NetApp.

Syslog Message

Device qualification information file (/etc/qual_devices) is invalid. See the qual_devices man page for corrective action. This problem must be corrected within %d hour(s) to avoid a forced system shutdown. The following disk(s) remain unqualified: %s.

Parameters

time (INT): Time until forced shutdown.
disklist (STRING): List of disks that are still not qualified.

disk.dynamicqual.failure.missingFile

Severity

ALERT

Description

This message occurs when dynamic device qualification fails with a missing qualification file.

Corrective Action

See the qual_devices man page for information about updating device qualification data. Request a qual_devices file from NetApp.

Syslog Message

Device Qualification information file (/etc/qual_devices) is missing. See the qual_devices man page for corrective action. This problem must be corrected within %d hour(s) to avoid a forced system shutdown. The following disk(s) remain unqualified: %s.

Parameters

time (INT): Time until forced shutdown.
disklist (STRING): List of disks that are still not qualified.

disk.dynamicqual.failure.occurred

Severity

ALERT

Description

This message occurs when dynamic device qualification fails with an unknown error.

Corrective Action

See the qual_devices man page for information about updating device qualification data.

Syslog Message

Device qualification failure occurred. See the qual_devices man page for corrective action. This problem must be corrected within %d hour(s) to avoid a forced system shutdown. The following disk(s) remain unqualified: %s.

Parameters

time (INT): Time until forced shutdown.
disklist (STRING): List of disks that are still not qualified.

disk.dynamicqual.failure.shutdown

Severity

EMERGENCY

Description

This message occurs when one or more disks are not recognized by Data ONTAP®. This can result in a forced system shutdown if the offending disks are not removed or recognized properly within the allowed window of time.

Corrective Action

Download the latest Drive Qualification Package (DQP) from NetApp technical support, and then install it on your system.

Syslog Message

Device qualification failure has not been corrected for the past %d hour(s). The following disk(s) remain unqualified: %s. System is SHUTTING DOWN.

Parameters

time (INT): Time until forced shutdown.
disklist (STRING): List of disks that are still not qualified.

disk.encrypt events

disk.encrypt.destroy.complete

Severity

INFORMATIONAL

Description

This message occurs when the disk encrypt destroy operation is completed.

Corrective Action

(None).

Syslog Message

Disk %s [S/N %s] has completed encrypt destroy.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.

disk.encrypt.range.check

Severity

ERROR

Description

This message occurs when ONTAP® software detects that the reported capacity of an encrypting drive is different from the protected range capacity of the drive.

Corrective Action

Contact NetApp technical support.

Syslog Message

Drive %s["%s"] - The protected range capacity (%llu) of this encrypting drive is different from its reported capacity (%llu).

Parameters

diskName (STRING): Name of the disk.
productID (STRING): Product name of the disk.
advertisedDriveCapacity (LONGINT): Capacity reported by the drive(in bytes).
protectedDriveCapacity (LONGINT): Protected capacity of the drive(in bytes), specifically the drive capacity that is protected using an authentication key.

disk.encrypt.revert.complete

Severity

NOTICE

Description

This message occurs when the disk encrypt revert operation is completed.

Corrective Action

(None).

Syslog Message

Disk %s [S/N %s] has completed encrypt revert.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.

disk.encryptaccesserr events

disk.encryptAccessErr

Severity

ERROR

Description

This message occurs when a disk reports a data protection error, and ONTAP® cannot restore permission to access the data through storage encryption methods.

Corrective Action

If the disk is known to be an encrypting disk, then ONTAP might not have the correct storage encryption passphrase for this device. If possible, import the proper passphrase. If the passphrase cannot be recovered, or if the disk is not an encrypting disk, then all data on the disk is permanently inaccessible. You can return an encrypting disk to service as a spare through the use of the 'disk encrypt sanitize' command. If the device cannot be recovered, then it must be removed from the system.

Syslog Message

Unable to restore data access on encrypting disk %s; status %s (0x%x).

Parameters

diskName (STRING): Name of the disk.
status_string (STRING): Status code description.
status (INT): Status code from the SCSI driver.

disk.encryptaccessfwerr events

disk.encryptAccessFWErr

Severity

ERROR

Description

This message occurs when a disk reports a SCSI data protection error on an attempt to download firmware and ONTAP® cannot restore permission to access the firmware through storage encryption methods.

Corrective Action

If the disk is known to be an encrypting disk, then ONTAP might not have the correct storage encryption passphrase for this device. If possible, import the proper passphrase. If the passphrase cannot be recovered, or if the disk is not an encrypting disk, then the firmware cannot be downloaded. If the device cannot be recovered, then it must be removed from the system.

Syslog Message

Unable to restore firmware download access on encrypting disk %s; status %s (0x%x).

Parameters

diskName (STRING): Name of the disk.
status_string (STRING): Status code description from the SCSI driver.
status (INT): Status code from the SCSI driver.

disk.encryptcmdfailed events

disk.encryptCmdFailed

Severity

ERROR

Description

This message occurs when the indicated "storage encryption disk" command fails on an encrypting disk that supports storage encryption methods.

Corrective Action

Verify that storage encryption key servers, if required, are available and functioning, or that expected on-board keys are present.

Syslog Message

Encrypting disk %s failed disk encrypt %s command with error status %s (0x%x).

Parameters

disk (STRING): Name of the disk.
command (STRING): Storage encryption disk command.
error_string (STRING): Error status code description.
error (INT): Error status code.

disk.encryptfipspassphnosync events

disk.encryptFIPSPassphNoSync

Severity

NOTICE

Description

This message occurs when a system with NetApp® Storage Encryption (NSE) enabled detects that the authentication keys (AKs, or passphrases) for the internal FIPS-compliance authorities in a FIPS-certified drive are inconsistent. This can occur when a previous attempt to modify the FIPS-compliance passphrases failed.

Corrective Action

Use the "security key-manager" commands to display the available AKs from external KMIP key-management servers or onboard key management (OKM). Use the "storage encryption disk modify -fips -key-id" command to assign the desired AK to the FIPS-compliance authorities in the drive. If the condition persists, either replace the drive, or use the "storage encryption disk revert-to-original-state" command to reset the drive to its original condition. Warning: This command also removes all user data from the drive.

Syslog Message

The FIPS-compliance authorities for NSE drive %s have inconsistent authentication keys (AKs).

Parameters

diskName (STRING): Name of the drive.

disk.encryptgetmsidfailed events

disk.encryptGetMSIDFailed

Severity

NOTICE

Description

This message occurs when an encrypting disk reports a SCSI data protection error, but Data ONTAP® cannot obtain the Manufacturer's Secure ID (MSID) that is mandatory on disks that support storage encryption methods. Some conditions can cause this error temporarily.

Corrective Action

If the error persists, replace the disk or remove it from the system.

Syslog Message

Unable to obtain MSID from disk %s; status "%s" (0x%x).

Parameters

diskName (STRING): Name of the disk.
status_string (STRING): Status code description from the SCSI driver.
status (INT): Status code from the SCSI driver.

disk.encryptnosupport events

disk.encryptNoSupport

Severity

ALERT

Description

This message occurs when ONTAP® software detects one or more FIPS-certified self-encrypting drives, but the environment variable 'bootarg.storageencryption.support' is not present or is set to "false" to indicate that FIPS-certified drives are not supported.

Corrective Action

Remove all FIPS-certified drives.

Syslog Message

Detected FIPS-certified encrypting drive %s, but FIPS drives are not supported on this node. %d of %d disks checked are FIPS-certified.

Parameters

disk (STRING): Name of a FIPS-certified drive.
FIPS_disks (INT): Number of FIPS-certified drives detected.
disk_count (INT): Total number of drives checked. For a high-availability pair, this might be fewer than the total number of drives.

disk.encryptprotdiff events

disk.encryptProtDiff

Severity
NOTICE

Description
This message occurs when self-encrypting drives have different settings of data-at-rest protections; that is, some are protected, having a nondefault Data Key ID, and some are not, having one of the default Data Key IDs. Best protection is provided when all encrypting drives are protected, including spares that might be assigned automatically to an aggregate.

Corrective Action
Use the "storage encryption disk show -protection-mode !data" command to display the drives that are not protected; use the "storage encryption disk show -protection-mode data" command to show the drives that are protected. Use the "storage encryption disk modify -data-key-id" command to set the Data Key ID to a nondefault value.

Syslog Message
Self-encrypting drives on the system have dissimilar data protection settings.

Parameters
(None).

disk.encryptsupportreqd events

disk.encryptSupportReqd

Severity
ALERT

Description
This message occurs when ONTAP® software detects one or more nonencrypting drives or non-FIPS-certified self-encrypting drives (SEDs), but the environment variable 'bootarg.storageencryption.support' is set to "true" to indicate that all drives must be FIPS-certified.

Corrective Action
Remove all non-FIPS-certified SEDs and standard drives.

Syslog Message
Detected nonencrypting drive or non-FIPS-certified drive %s, but only FIPS-certified drives are supported on this node. %d of %d drives checked are FIPS-certified.

Parameters
disk (STRING): Name of a drive that is not FIPS-certified.
encrypting_disks (INT): Number of FIPS-certified drives detected.
disk_count (INT): Total number of drives checked. For a high-availability pair, this might be fewer than the total number of drives.

disk.eos events

disk.EOS.OS.error

Severity

ALERT

Description

This message occurs when a disk is detected that is not supported in this version of Data ONTAP® or later

Corrective Action

Remove the disk and replace it with a disk that is supported.

Syslog Message

%s support ended in version of %s. Current version is %s.

Parameters

disk_information (STRING): Disk information.
EOS_OS_version (STRING): Latest version of Data ONTAP supported by the disk.
cur_OS_version (STRING): Current version of Data ONTAP.

disk.exceed events

disk.exceed.cmd.completeTime

Severity

INFORMATIONAL

Description

This event is generated during disk qualification testing when READ/WRITE I/O requests exceed their expected maximum completion time.

Corrective Action

(None).

Syslog Message

Disk %s has exceeded %d ms limit — required %llu ms to complete command %s.

Parameters

diskName (STRING): Name of the disk.
timeLimit (INT): Time limit to complete command.
timeTaken (LONGINT): Time taken to complete command.
commandSTR (STRING): Disk qualification command in string.

disk.fail events

disk.fail.ssdstats

Severity

INFORMATIONAL

Description

This message occurs when a disk is marked failed, is being sanitized, or has entered Maintenance Center.

Corrective Action

(None).

Syslog Message

Disk %s (%s) failed with rated life used %s, percent spare blocks %s, spare blocks %s.

Parameters

diskName (STRING): Name of the disk.
serialno (STRING): Serial number.
ratedLife (STRING): Rated life used.
percentSpare (STRING): Percent spare blocks consumed.
spareBlks (STRING): Spare blocks consumed limit.

disk.failmsg events

disk.failmsg

Deprecated

Deprecated as of ONTAP 9.5 - replaced by disk.outOfService.

Severity

NOTICE

Description

This message occurs when a drive is marked failed, is being sanitized, or has entered Maintenance Center.

Corrective Action

(None).

Syslog Message

Disk %s (%s)%s. %d %s

Parameters

diskName (STRING): Name of the drive.
serialno (STRING): Serial number.
reason (STRING): Reason for the failure.
powerOnTime (INTHEX): Time, in minutes, that the drive was powered on when the failure occurred.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.fakereassignsuccess events

disk.fakereassignSuccess

Severity

NOTICE

Description

This message occurs when a fake reassign is detected on a disk and the sector verify succeeds.

Corrective Action

(None).

Syslog Message

disk %s: A fake reassign was issued on sector %llu for disk %s. Disable with boot arg disable-disk-fake-reassign? true.

Parameters

diskName (STRING): Name of the disk.
sector (LONGINT): Sector where the error was detected.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.fli events

disk.fli.abort.ioSent

Severity

NOTICE

Description

This message occurs when an I/O operation below the SCSI layer is aborted because a Foreign LUN Import (FLI) abort message was issued.

Corrective Action

(None).

Syslog Message

An I/O with the opcode %s has been aborted on disk %s.

Parameters

opcode (STRING): Opcode that specifies the operation that was aborted.
diskName (STRING): Name of the disk.

disk.fli.abort.ioUnSent

Severity

NOTICE

Description

This message occurs when an I/O operation in the disk class layer is aborted because a Foreign LUN Import (FLI) abort message was issued.

Corrective Action

(None).

Syslog Message

An I/O with the block count %llu starting at offset %llu has been aborted on disk %s.

Parameters

blockCount (LONGINT): Number of blocks that this I/O operation spans.
offset (LONGINT): Start of the I/O operation.
diskName (STRING): Name of the disk.

disk.fli.tmf.complete

Severity

NOTICE

Description

This message occurs when a Foreign LUN Import (FLI) message (abort or LUN reset) is completed.

Corrective Action

(None).

Syslog Message

Foreign LUN Import (FLI) message: %s completed on disk %s with status %d.

Parameters

msgType (STRING): Specifies which type of FLI message: either abort or LUN reset.
diskName (STRING): Name of the disk to which this FLI message was sent.
returnStatus (INT): Completion status of the FLI message.

disk.fw events

disk.fw.autodownrev

Severity

INFORMATIONAL

Description

This message occurs when the system detects disks with firmware that is not up-to-date. The background firmware update program will update the firmware automatically if the correct firmware files are in place.

Corrective Action

Download the correct firmware file onto the system. Check your support provider's web site or knowledgebase for more information about obtaining the latest disk firmware.

Syslog Message

%d disks have downrev firmware. They will be updated automatically using background disk firmware update if the correct firmware files are in place.

Parameters

    driveCount (INT): Number of disks that need to have updated firmware.

disk.fw.downrevWarning

Severity

    ERROR

Description

    This message occurs when the system detects disks with firmware that is not up-to-date.

Corrective Action

    Download and install the latest disk firmware file. Check your support provider's web site or knowledgebase for more information about obtaining the latest disk firmware.

Syslog Message

    %d disks have downrev firmware that you need to update.

Parameters

    driveCount (INT): Number of disks that need to have updated firmware.

disk.healthtrigger events

disk.healthTrigger

Severity

    NOTICE

Description

    This message occurs when the disk returns a health trigger event.

Corrective Action

    No action is required because this message is informational only. If the disk is having problems processing I/O, an error will be returned.

Syslog Message

    Disk %s received NHT health trigger (0x%x 0x%x 0x%x 0x%x)

Parameters

    diskName (STRING): Name of the device.
    sense_key (INTHEX): SCSI sense key.
    sense_code (INTHEX): SCSI sense code.
    qualifier (INTHEX): SCSI sense code qualifier.
    fru_failed (INTHEX): SCSI FRU code.

disk.init events

disk.init.badSectorSize

Severity

    ERROR

Description

    This message occurs when a disk reports a sector size that does not match the drive qualification table.

Corrective Action

    Replace the disk.

Syslog Message

    Disk %s has an unexpected sector size (%d bytes) and cannot be used.

Parameters

    diskName (STRING): Name of the disk.
    sector_size (INT): Invalid sector size.

disk.init.err.capacityFlash

Severity

    ERROR

Description

    This message occurs when a capacity-optimized flash solid-state drive (SSD) is detected by a node that does not support this type of SSD.

Corrective Action

    Remove the disk from the system.

Syslog Message

    Disk %s cannot be used on a node that does not support capacity-optimized flash.

Parameters

    diskName (STRING): Name of the disk.

disk.init.err.flashOptimized

Severity

    ERROR

Description

    This message occurs when a hard disk drive (HDD) is detected by a node configured with the All-Flash Optimized personality. With this personality, only solid-state drives (SSD) can be used.

Corrective Action

    Remove the disk from the system.

Syslog Message

    Disk %s cannot be used on a node configured as All-Flash Optimized.

Parameters

diskName (STRING): Name of the disk.

disk.init.err.not.NVMe

Severity

ERROR

Description

This message occurs when a non-NVMe drive is detected by a node that only supports NVMe drives.

Corrective Action

Remove the drive from the system.

Syslog Message

Drive %s cannot be used on a node that only supports NVMe drives.

Parameters

diskName (STRING): Name of the drive.

disk.init.err.not.SED

Severity

ERROR

Description

This message occurs when a non-self-encrypting drive (non-SED) is detected by a node that only supports self-encrypting drives (SEDs).

Corrective Action

Remove the drive from the system.

Syslog Message

Drive %s cannot be used on a node that only supports SEDs.

Parameters

diskName (STRING): Name of the drive.

disk.init.err.unsupp.shelf

Severity

ERROR

Description

This message occurs when an unsupported NVMe solid-state drive (SSD) is discovered in an external NVMe shelf. This NVMe SSD is only supported as an internal drive on the A800 system.

Corrective Action

Remove the drive from the external NVMe shelf.

Syslog Message

Drive %s cannot be used in an external NVMe shelf.

Parameters

disk_name (STRING): Name of the SSD.
disk_information (STRING): Formatted information about the SSD. This includes the drive's vendor, model, firmware revision, and serial number.

disk.init.err.unsupported

Severity

ERROR

Description

This message occurs when an unsupported disk is detected on a node.

Corrective Action

Remove the disk from the system.

Syslog Message

Disk %s is not recognized as a supported disk and cannot be used on this node.

Parameters

diskName (STRING): Name of the disk.

disk.init.err.zns

Severity

ERROR

Description

This message occurs when a zoned namespace solid-state drive (SSD-ZNS) is detected by a node that does not support this type of SSD.

Corrective Action

Remove the disk from the system.

Syslog Message

Disk "%s" cannot be used on a node that does not support SSD-ZNS disks.

Parameters

diskName (STRING): Name of the disk.

disk.init.error.capacity

Severity

ERROR

Description

This message occurs when a disk reports an unexpected capacity.

Corrective Action

Replace the disk.

Syslog Message

Disk %s has an unexpected capacity (%llu sectors) and cannot be used. Replace it.

Parameters

diskName (STRING): Name of the disk.
lastSector (LONGINT): Last sector of the disk.
productID (STRING): Product name of the disk.

disk.init.error.serialno

Severity

ERROR

Description

This message occurs when the inquiry command does not return a valid serial number or device ID for the device. The device is failed during initialization.

Corrective Action

Replace the disk.

Syslog Message

Serial number or device ID not available for %s.

Parameters

disk_name (STRING): Disk name.
page_code (INT): Page code that was sent.
error_pcode (INT): Page code received in error.

disk.init.failure.error

Severity

ERROR

Description

This message occurs when a drive fails initialization. For NVMe drives, the returned error information is translated into the SCSI equivalent.

Corrective Action

Replace the drive.

Syslog Message

Drive %s failed initialization due to error %d, sense code(%x %x %x %x).

Parameters

diskName (STRING): Name of the drive.
errorCode (INT): Internal E_SCSI return code.
sense_key (INTHEX): Sense key.
sense_code (INTHEX): Additional sense code.

qualifier (INTHEX): Additional sense code qualifier.
fru_failed (INTHEX): FRU code.

disk.init.failure.spinup

Severity

ERROR

Description

This message occurs when a disk cannot spin up during initialization. The disk is marked as failed and is not used.

Corrective Action

Removed the disk from the system.

Syslog Message

Disk %s has failed to spin up and cannot be used. Replace it with a new drive.

Parameters

diskName (STRING): Name of the disk.

disk.init.failureBytes

Severity

ERROR

Description

This message occurs when the system discovers a previously failed disk. The system will not use the disk and it should be replaced.

Corrective Action

Replace the failed disk.

Syslog Message

Failed disk %s detected during disk initialization.

Parameters

diskName (STRING): Name of the disk.

disk.init.invalidDDR

Severity

INFORMATIONAL

Description

This message occurs when a disk contains a Dynamic Drive Recognition (DDR) label entry that is not for this disk. The system rewrites the DDR label with proper values.

Corrective Action

(None).

Syslog Message

Disk %s has an invalid DDR entry. DDR label will be corrected and rewritten automatically.

Parameters

diskName (STRING): Name of the disk.
vendorID (STRING): Vendor name of the disk.
productID (STRING): Product name of the disk.

disk.init.prottype.incompat

Severity

ERROR

Description

This message occurs when a hard disk drive (HDD) has a protection type enabled that is not supported. Protection type is a disk option that determines how information is physically saved on the disk.

Corrective Action

Remove the disk from the system.

Syslog Message

Disk %s has protection type %x enabled and cannot be used. %s

Parameters

diskName (STRING): Name of the disk.
protType (INTHEX): Value indicating the version of the enabled protection type.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.init.recognizedDDR

Severity

INFORMATIONAL

Description

This message occurs when a Dynamic Drive Recognition (DDR) label on a drive with dynamically qualified data is properly updated with aliased data.

Corrective Action

(None).

Syslog Message

Disk %s has been updated with the proper drive name alias. The DDR label will be rewritten automatically.

Parameters

diskName (STRING): Name of the disk.
vendorID (STRING): Vendor name of the disk.
productID (STRING): Product name of the disk.

disk.init.unknownDisk

Severity

ERROR

Description

This message occurs when a unique identifier cannot be created for a disk due to internal disk problems.

Corrective Action

The disk needs to be replaced, remove it from the system.

Syslog Message

Unable to identify disk %s.

Parameters

diskName (STRING): Name of the disk.

disk.iomediumerror events

disk.ioMediumError

Severity

NOTICE

Description

This message occurs when the drive reports a medium error.

Corrective Action

(None).

Syslog Message

Medium error on disk %s: op %s sector %llu %s - %s %s (%x %x %x %x) (%d) %s

Parameters

diskName (STRING): Name of the disk.
op (STRING): I/O operation being performed.
sector (LONGINT): Sector where the error was detected.
senseInfo (STRING): Sense data.
sCode (STRING): Sector code.
disk_info (STRING): Static description of events on the disk.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.
CTime (INT): Time, in milliseconds, from when the command was first issued until this I/O operation completed.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.ioreassignfailed events

disk.ioReassignFailed

Severity

ALERT

Description

This message occurs when a disk reports a medium error and the sector reassignment fails. The system will fail the disk after possible recovery of retrieviable disk data.

Corrective Action

Replace the disk when the system indicates that you should remove it in subsequent logged events.

Syslog Message

disk %s: sector %llu failed to be reassigned (%d). %s

Parameters

diskName (STRING): Name of the disk.
sector (LONGINT): Sector where the error was detected.
ETime (INT): Time, in milliseconds, from when the command was first issued until this I/O operation failed.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.ioreassignsuccess events

disk.ioReassignSuccess

Severity

NOTICE

Description

This message occurs when a medium error is detected on a disk and the sector reassignment succeeds.

Corrective Action

(None).

Syslog Message

disk %s: sector %llu was reassigned (%d). %s

Parameters

diskName (STRING): Name of the disk.
sector (LONGINT): Sector where the error was detected.
CTime (INT): Time, in milliseconds, from when the command was first issued until this I/O operation completed.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.iorecoverederror events

disk.ioRecoveredError.pfa

Severity

ERROR

Description

This message occurs when a disk determines that it will fail shortly. This occurs when a threshold internal to the disk indicates that a failure is imminent.

Corrective Action

To avoid an uncontrolled failure, replace the disk as soon as possible. If the disk is a member of a RAID volume, the disk will be failed by RAID when this error occurs on a RAID I/O and the RAID group is not in degraded mode.

Syslog Message

Recovered error predictive failure alert on disk %s: op %s sector %llu %s - %s (%x %x %x %x)

Parameters

diskName (STRING): Name of the disk.
op (STRING): I/O operation being performed.
sector (LONGINT): Sector where the error was detected.
senseInfo (STRING): Sense data.
disk_info (STRING): Static description of events on the disk.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.ioRecoveredError.reassign

Severity

NOTICE

Description

This message occurs when a disk automatically reassigns a sector on a disk.

Corrective Action

(None).

Syslog Message

Recovered error on disk %s: op %s sector %llu %s - %s (%x %x %x %x) %s

Parameters

diskName (STRING): Name of the disk.
op (STRING): I/O operation being performed.
sector (LONGINT): Sector where the error was detected.
senseInfo (STRING): Sense data.

disk_info (STRING): Static description of events on the disk.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.ioRecoveredError.retry

Severity

INFORMATIONAL

Description

This message occurs when a recovered error is detected on a disk.

Corrective Action

(None).

Syslog Message

Recovered error on disk %s: op %s sector %llu %s - %s (%x %x %x %x) (%d) %s

Parameters

diskName (STRING): Name of the disk.
op (STRING): I/O operation being performed.
sector (LONGINT): Sector where the error was detected.
senseInfo (STRING): Sense data.
disk_info (STRING): Static description of events on the disk.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.
ETime (INT): Time, in milliseconds, from when the command was first issued until this I/O operation failed.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.lipstormdetect events

disk.lipStormDetect

Severity

NOTICE

Description

This message occurs when a Fibre Channel disk detects a large number of Loop Initialization Procedure requests (a LIP storm) and has reset itself.

Corrective Action

None required. If this happens a second time, the disk will be failed.

Syslog Message

shm: disk %s reports a LIP storm reset. %s. Error %x/%x/%x/%x.

Parameters

diskName (STRING): Name of the disk (host adapter, loop ID).
disk_info (STRING): Static description of events on the disk.
sense_key (INT): Actual sense key.
sense_code (INT): Actual sense code.
qualifier (INT): Actual sense code qualifier.
fru_failed (INT): Actual FRU code.

disk.lostwritedetected events

disk.lostwriteDetected

Severity

ERROR

Description

This message occurs when the system detects a lost write.

Corrective Action

(None).

Syslog Message

Disk level lost write detected on WRITE VERIFY: Disk %s, Block #%llu: Volume %s, FileId %d, Block #%llu: Expected 0x%x, Recomputed as 0x%x.

Parameters

diskName (STRING): Name of the device.
bno (LONGINT): Block ID.
vol (STRING): Volume name.
fileid (INT): File ID.
block (LONGINT): File block ID.
cksum (INTHEX): Expected checksum.
cksum2 (INTHEX): Computed checksum.

disk.lun events

disk.lun.allMemoryAvailable

Severity

NOTICE

Description

This message occurs to confirm that enough memory is present to successfully allocate command blocks for all of the disks in the system and for additional LUNS.

Corrective Action

(None).

Syslog Message

disk_init :Allocated all memory required for array LUNs.

Parameters

(None).

disk.lun.outOfMemory

Severity

NOTICE

Description

This message occurs when the system cannot allocate the additional memory for LUNs.

Corrective Action

(None).

Syslog Message

disk_init: Unable to allocate memory for array LUN commands on %s.

Parameters

diskName (STRING): Name of the device that could not allocate memory.

disk.lun.sizeTooLarge

Severity

ALERT

Description

This message occurs when an array LUN on an external RAID storage subsystem or a virtual disk is too large to be used as storage by the controller.

Corrective Action

Reduce this array LUN size, or re-create the virtual disk within the parameter limit.

Syslog Message

Array LUN or virtual disk %s is too large (%s bytes) and cannot be used. The maximum permissible array LUN or virtual disk size is %s. Reduce this array LUN size by %lld bytes, or re-create the virtual disk within the parameter limit (%lld %d byte blocks).

Parameters

diskName (STRING): Name of the array LUN or virtual disk that is too large.
lunSize (STRING): Size, expressed in bytes, of the array LUN or virtual disk that is too large.
maxSize (STRING): Maximum permissible array LUN or virtual disk size, expressed in bytes.
byteDiff (LONGINT): Difference, expressed in bytes, between the array LUN or virtual disk size and the maximum size Data ONTAP® supports.
blockDiff (LONGINT): Difference, expressed in blocks, between the array LUN or virtual disk size and the maximum size Data ONTAP supports.
blockSize (INT): Block size of the array LUN or virtual disk.

disk.lun.sizeTooSmall

Severity

ALERT

Description

This message occurs when an array LUN on an external RAID storage subsystem or a virtual disk is too small to be used as storage by the controller.

Corrective Action

Delete the array LUN or virtual disk and re-create it within the parameter limit.

Syslog Message

LUN or virtual disk %s is too small (%s bytes) and cannot be used. The minimum permissible LUN or virtual disk size is %s. Increase this LUN or virtual disk size by %lld bytes (%lld %d byte blocks).

Parameters

diskName (STRING): Name of the LUN or virtual disk that is too small.
lunSize (STRING): Size, in bytes, of the LUN or virtual disk that is too small.
minSize (STRING): Minimum permissible LUN or virtual disk size, expressed in bytes.
byteDiff (LONGINT): Difference, in bytes, between the LUN or virtual disk size and the minimum size Data ONTAP® supports.
blockDiff (LONGINT): Difference, in blocks, between the LUN or virtual disk size and the minimum size Data ONTAP supports.
blockSize (INT): Block size of the LUN or virtual disk.

disk.lun.unsupportedBlkSize

Severity

ALERT

Description

This message occurs when an array logical unit (LUN) on the external RAID storage subsystem reports an unsupported block size.

Corrective Action

Reformat the array LUN with a supported block size.

Syslog Message

disk_init: Array LUN %s reports a block size of %u bytes and it cannot be used. Reformat the array LUN with a supported block size.

Parameters

diskName (STRING): Name of the array LUN with the unsupported block size.
sector_size (INT): Unsupported block size.

disk.maint events

disk.maint.test.end

Severity

NOTICE

Description

This message occurs when maintenance testing has completed.

Corrective Action

(None).

Syslog Message

Disk %s Model [%s] S/N [%s] has completed maintenance testing with status %d (0x%x,0x%x,0x%x,0x%x).

Parameters

disk_name (STRING): Name of the disk.
productID (STRING): Product name of the disk.
serialno (STRING): Serial number of the disk.
status (INT): Maintenance test completion status where 0 represents successful completion of the test.
fa0 (INTHEX): Failure byte 0.
fa1 (INTHEX): Failure byte 1.
fa2 (INTHEX): Failure byte 2.
fa3 (INTHEX): Failure byte 3.

disk.maint.test.start

Severity

NOTICE

Description

This message occurs when maintenance testing begins on a disk.

Corrective Action

(None).

Syslog Message

Disk %s Model [%s] S/N [%s] has started maintenance testing.

Parameters

disk_name (STRING): Name of the disk.
productID (STRING): Product name of the disk.
serialno (STRING): Serial number of the disk.

disk.max events

disk.max.partitions

Severity

ERROR

Description

This message occurs when ONTAP® software cannot partition a disk because the system already has the maximum number of partitioned disks.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

Disk %s cannot be partitioned as the system already has %d partitioned disks.

Parameters

diskName (STRING): Name of the disk.
maxPartitionLimit (INT): Maximum number of disks which can be partitioned.

disk.min events

disk.min.OS.error

Severity

ERROR

Description

This message occurs when a disk is detected that is not supported in this version of Data ONTAP®.

Corrective Action

Remove the disk and replace it with a disk that is supported, or upgrade the kernel to the required version.

Syslog Message

%s is not supported because it requires a minimum kernel version of %s. Current version is %s.

Parameters

disk_information (STRING): Disk information.
min_OS_version (STRING): Disk's minimum supported Data ONTAP version.
cur_OS_version (STRING): Current version of the Data ONTAP.

disk.outofservice events

disk.outOfService

Severity

NOTICE

Description

This message occurs when a drive is removed from service because it has been marked failed, is being sanitized, or has entered Maintenance Center.

Corrective Action

(None).

Syslog Message

Drive %s (%s)%s. Power-On Hours: %s, GList Count: %d, Drive Info: %s.

Parameters

diskName (STRING): Name of the drive.
serialno (STRING): Serial number of the drive.
reason (STRING): Reason for removal from service.
powerOnHours (STRING): Time, in hours, that the drive was powered on when the failure occurred.
glistEntries (INT): Number of grown defect list entries.
disk_information (STRING): Formatted information about the drive. This includes the drive's vendor, model, firmware revision, and serial number.

disk.partdisknotsuppmcc events

disk.partDiskNotSuppMCC

Severity

NOTICE

Description

This message occurs when a partitioned disk is found in a MetroCluster™ configuration.

Corrective Action

Remove the partitioned disk, because it is not supported in a MetroCluster configuration.

Syslog Message

Ignoring disk %s because partitioned disks are not supported in a MetroCluster™ configuration.

Parameters

diskName (STRING): Name of the disk.

disk.partition events

disk.partition.exceeded

Severity

ERROR

Description

This message occurs when the disk partition layout contains more partitions than are supported by the system.

Corrective Action

Fix the unsupported disk partition layout by using the 'disk unpartition' command to make the disk a spare disk.

Syslog Message

Disk %s has %d partitions, which exceeds the maximum of %d partitions.

Parameters

disk_name (STRING): Name of the disk.
partition_count (INT): Number of partitions on the disk.
max_partition_count (INT): Maximum number of partitions supported per disk.

disk.partner events

disk.partner.encrRevertDone

Severity

NOTICE

Description

This message occurs when a node receives notice that a partner node has completed a disk encrypt revert operation.

Corrective Action

(None).

Syslog Message

The partner has completed reverting drive %s to its original state.

Parameters

diskName (STRING): Name of the device.

disk.partner.encrRevertStart

Severity

NOTICE

Description

This message occurs when a node receives notice that a partner node has started a disk encrypt revert operation.

Corrective Action

(None).

Syslog Message

The partner has started reverting drive %s to its original state.

Parameters

diskName (STRING): Name of the device.

disk.partner.sanitizeStart

Severity

INFORMATIONAL

Description

This message occurs when a message is received from the partner for a disk sanitize start.

Corrective Action

(None).

Syslog Message

The partner has started a disk sanitize on %s.

Parameters

diskName (STRING): Name of the disk.

disk.readreservationfailed events

disk.readReservationFailed

Severity

ERROR

Description

This message occurs when a SCSI (Small Computer System Interface) read reservation fails.

Corrective Action

This is not a problem if seen occasionally. If this message is seen repeatedly, or is blocking access to a LUN for longer than 10 minutes, open a support case to investigate the underlying cause.

Syslog Message

Disk read reservation failed on %s CDB %s - %s (%x %x %x)

Parameters

diskName (STRING): Name of the device.
cdb (STRING): CDB (Command Descriptor Block) containnig the I/O operation being performed.
sSenseKey (STRING): Sense key value.
iSenseKey (INTHEX): Actual sense key.
iASC (INTHEX): SCSI Additional Sense Code.
iASCQ (INTHEX): SCSI Additional Sense Code Qualifier.
sm (STRING): SCSI Persistent Reservation state machine.
state (INT): SCSI Persistent Reservation state machine step.
out_status_flags (INTHEX): Status flag contains bits describing which of the following status values are valid.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
target_status (INTHEX): Value returned by the target describing completion status of I/O request.
target_rsp_code (INTHEX): Target response code.

disk.releasefailed events

disk.releaseFailed

Severity

ERROR

Description

This message occurs when a SCSI release reservation fails.

Corrective Action

This is not a problem if seen occasionally. If this message is seen repeatedly, or is blocking access to a LUN for longer than 10 minutes, open a support case to investigate the underlying cause.

Syslog Message

Disk release failed on %s CDB %s - %s (%x %x %x)

Parameters

diskName (STRING): Name of the device.
cdb (STRING): CDB (Command Descriptor Block) containing the I/O operation being performed.
sSenseKey (STRING): Sense key value.
iSenseKey (INTHEX): Actual sense key.
iASC (INTHEX): SCSI Additional Sense Code.
iASCQ (INTHEX): SCSI Additional Sense Code Qualifier.
sm (STRING): SCSI Persistent Reservation state machine.
state (INT): SCSI Persistent Reservation state machine step.
out_status_flags (INTHEX): Status flag contains bits describing which of the following status values are valid.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
target_status (INTHEX): Value returned by the target describing completion status of I/O request.
target_rsp_code (INTHEX): Target response code.

disk.reservedelay events

disk.reserveDelay

Severity

NOTICE

Description

This message occurs when a SCSI reservation command has a longer latency than expected during takeover. This delay could cause a system outage in which case the disk should be removed to prevent further problems. .

Corrective Action

If you see this message before an outage on takeover, remove the specified disk.

Syslog Message

The disk reservation command sent to %s has taken longer than expected: %d msecs during takeover.

Parameters

diskName (STRING): Name of the device.
elapsed_time (INT): Number of milliseconds for the command to complete.

disk.reserveerror events

disk.reserveError

Severity

NOTICE

Description

This message occurs when a SCSI reservation is requested for a disk or LUN that is no longer seen.

Corrective Action

A disk or LUN might have been removed from the storage subsystem or the path to a disk or LUN has been lost. Verify that all paths to the disk or LUN are visible to the appliance using the storage show disk -p command.

Syslog Message

disk_reserve: %s was not found: CDB %s - %s (%x %x %x)

Parameters

diskName (STRING): Name of the device.
cdb (STRING): CDB (Command Descriptor Block) containing the I/O operation being performed.
sSenseKey (STRING): Sense key string.
iSenseKey (INTHEX): Sense key value.
iASC (INTHEX): SCSI Additional Sense Code.
iASCQ (INTHEX): SCSI Additional Sense Code Qualifier.
sm (STRING): SCSI Persistent Reservation state machine.
state (INT): SCSI Persistent Reservation state machine step.
out_status_flags (INTHEX): Status flag containing bits describing which of the following status values are valid.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
target_status (INTHEX): Value returned by the target describing completion status of I/O request.
target_rsp_code (INTHEX): Target response code.

disk.reservefailed events

disk.reserveFailed

Severity

ERROR

Description

This message occurs when a SCSI reservation fails.

Corrective Action

This is not a problem if seen occasionally. If this message is seen repeatedly, or is blocking access to a LUN for longer than 10 minutes, contact NetApp technical support to open a support case to investigate the underlying cause.

Syslog Message

Disk reservation failed on %s CDB %s - %s (%x %x %x)

Parameters

diskName (STRING): Name of the device.
cdb (STRING): CDB (Command Descriptor Block) containing the I/O operation being performed.

sSenseKey (STRING): Sense key string.
iSenseKey (INTHEX): Actual sense key.
iASC (INTHEX): SCSI Additional Sense Code.
iASCQ (INTHEX): SCSI Additional Sense Code Qualifier.
sm (STRING): SCSI Persistent Reservation state machine.
state (INT): SCSI Persistent Reservation state machine step.
out_status_flags (INTHEX): Status flag containing bits describing which of the following status values are valid.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
target_status (INTHEX): Value returned by the target describing completion status of I/O request.
target_rsp_code (INTHEX): This is the target response code

disk.rewritedatafailed events

disk.rewriteDataFailed

Severity

ALERT

Description

This message occurs when the system encounters an error and cannot rewrite data that was difficult to read on ATA drives.

Corrective Action

(None).

Syslog Message

Unable to rewrite %s on disk %s.

Parameters

command (STRING): SCSI command that reported a problem.
diskName (STRING): Name of the device.

disk.sanit events

disk.sanit.complete

Severity

INFORMATIONAL

Description

This message occurs when disk sanitization has been completed.

Corrective Action

(None).

Syslog Message

Disk %s [S/N %s] has completed sanitization.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.

disk.sanit.error

Severity

ERROR

Description

This message occurs when a disk returns an error during sanitization.

Corrective Action

Verify that the drive is capable of sanitization and check the knowledgebase of the support vendor website for the error codes.

Syslog Message

Disk %s has received an error %d (0%xh/0%xh/0%xh/0%xh) during sanitization.

Parameters

diskName (STRING): Name of the disk.
scsi_error (INT): SCSI error code.
sense_key (INT): Actual sense key.
sense_code (INT): Actual sense code.
qualifier (INT): Actual sense code qualifier.
fru_failed (INT): Actual FRU code.

disk.sanit.formatComplete

Severity

INFORMATIONAL

Description

This message occurs when the disk sanitization format phase is complete.

Corrective Action

(None).

Syslog Message

Disk sanitization format complete for disk %s [S/N %s], begin pattern writes.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.

disk.sanit.formatError

Severity

ERROR

Description

This message occurs when disk sanitization formatting fails.

Corrective Action

(None).

Syslog Message

Disk %s has received an error %d (0%xh/0%xh/0%xh) during the formatting of the drive. Format will be retried within fifteen minutes.

Parameters

diskName (STRING): Name of the device.
status (INT): Error code.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.

disk.sanit.formatFailed

Severity

ERROR

Description

This message occurs when disk sanitization reformatting has been retried unsuccessfully the maximum number of times.

Corrective Action

Disk sanitization reformatting attempts have been unsuccessful. To make the disk usable, it must be reformatted. You can do this in maintenance mode with the SCSI "format" command.

Syslog Message

Disk sanitization reformat has failed for disk %s.

Parameters

diskName (STRING): Name of the device.

disk.sanit.patternDone

Severity

INFORMATIONAL

Description

This message occurs when disk sanitization has completed a cycle of a pattern write.

Corrective Action

(None).

Syslog Message

Disk %s [S/N %s] cycle %d pattern write of 0x%02x completed in %02d:%02d:%02d.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.
cycle (INT): Sanitization cycle.
pattern (INT): Pattern byte.
hours (INT): Time in hours.
minutes (INT): Time in minutes.
seconds (INT): Time in seconds.

disk.sanit.randomPatternDone

Severity

INFORMATIONAL

Description

This message occurs when disk sanitization has completed a cycle of random data write.

Corrective Action

(None).

Syslog Message

Disk %s [S/N %s] cycle %d pattern write of random data completed in %02d:%02d:%02d.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.
cycle (INT): Sanitization cycle.
hours (INT): Time in hours.
minutes (INT): Time in minutes.
seconds (INT): Time in seconds.

disk.sanit.reformatComplete

Severity

INFORMATIONAL

Description

This message occurs when disk sanitization reformatting is complete.

Corrective Action

(None).

Syslog Message

Disk %s has been successfully reformatted. To sanitize disk, restart the disk sanitize command. To bypass format, use -s option.

Parameters

diskName (STRING): Name of the device.

disk.sanit.sanitComplete

Severity

INFORMATIONAL

Description

This message occurs when the SCSI sanitize command phase of a 'disk sanitize' command is complete, and the data pattern write phase begins.

Corrective Action

(None).

Syslog Message

Sanitization phase of the 'disk sanitize' command was completed for disk %s [S/N %s]. Pattern writes have begun.

Parameters

diskName (STRING): Name of the device.
serialno (STRING): Serial number of the device.

disk.selectiontimeout events

disk.selectionTimeout

Severity

ERROR

Description

This message occurs when a selection timeout is received.

Corrective Action

(None).

Syslog Message

Disk %s: selection timeout

Parameters

diskName (STRING): Name of the device.

disk.senseerror events

disk.senseError

Severity

ERROR

Description

This message occurs when the drive reports an error.

Corrective Action

Check the event log for related error messages and corrective actions.

Syslog Message

Disk %s: op %s sector %llu %s - %s (%x %x %x %x)

Parameters

diskName (STRING): Name of the disk.
op (STRING): I/O operation being performed.
sector (LONGINT): Sector where the error was detected.
senseInfo (STRING): Sense data.
sCode (STRING): Sector code.
sense_key (INTHEX): SCSI sense key.
sense_code (INTHEX): SCSI sense code.
qualifier (INTHEX): SCSI sense code qualifier.
fru_failed (INTHEX): SCSI FRU code.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

disk.senseinfonotvalid events

disk.senseInfoNotValid

Severity

ERROR

Description

This message occurs when invalid sense information is returned.

Corrective Action

(None).

Syslog Message

Disk %s: sense data information field is not valid.

Parameters

diskName (STRING): Name of the device.

disk.setarraylqd events

disk.setArrayLQD

Severity

INFORMATIONAL

Description

This message occurs when you set the LUN queue depth for all the LUNs of an array.

Corrective Action

(None).

All the LUNs on array '%s' have a LUN queue depth value set to %d.

Parameters

arrayName (STRING): Name of the array.
lqd (INT): LUN queue depth value.

disk.sizegrew events

disk.sizeGrew

Severity

NOTICE

Description

This message occurs when the controller detects an increase in the capacity of a virtual disk.

Corrective Action

(None).

Syslog Message

Size of virtual disk %s has been changed from %s to %s, an increase of %lld bytes (%lld %d-byte blocks).

Parameters

diskName (STRING): Name of the virtual disk that has an increased capacity.
Size (STRING): Original size of the virtual disk in bytes.
NewSize (STRING): Current size of the virtual disk in bytes.
byteDiff (LONGINT): Difference in bytes between the original size and the current size of the virtual disk.
blockDiff (LONGINT): Difference in blocks between the original size and the current size of the virtual disk.
blockSize (INT): Block size in bytes of the virtual disk.

disk.sizeshrank events

disk.sizeShrank

Severity

NOTICE

Description

This message occurs when the controller detects a decrease in the capacity of a virtual disk.

Corrective Action

(None).

Syslog Message

Size of virtual disk %s has changed from %s to %s, a decrease of %lld bytes (%lld %d-byte blocks).

Parameters

diskName (STRING): Name of the virtual disk that has a decreased capacity.
Size (STRING): Orignal size of the virtual disk in bytes.

NewSize (STRING): Current size of the virtual disk in bytes.
byteDiff (LONGINT): Difference in bytes between the original size and the current size of the virtual disk.
blockDiff (LONGINT): Difference in blocks between the original size and the current size of the virtual disk.
blockSize (INT): Block size in bytes of the virtual disk.

disk.spindleerror events

disk.spindleError.detect

Severity

ERROR

Description

This message occurs when a disk returns a spindle detect error. The disk will be recommended for failure.

Corrective Action

Disk firmware has detected spindle motor problems. The disk will be recommended for failure. If the disk is a member of a RAID volume,it will be failed by RAID when this error occurs on a RAID I/O and the raid group is not in degraded mode.

Syslog Message

Disk %s has reported a spindle detect error: (%x %x %x %x)

Parameters

diskName (STRING): Name of the disk.
sense_key (INTHEX): Actual sense key
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.

disk.spindleError.notice

Severity

INFORMATIONAL

Description

This message occurs when a disk returns a spindle detect error.

Corrective Action

Disk firmware has detected spindle motor problems. The option to recommend the drive for failure is not set, so the disk will not be automatically recommended for failure.

Syslog Message

(None).

Parameters

diskName (STRING): Name of the disk.
sense_key (INT): Actual sense key.
sense_code (INT): Actual sense code.
qualifier (INT): Actual sense code qualifier.
fru_failed (INT): Actual FRU code.

disk.stalledtoolong events

disk.stalledTooLong

Severity

ERROR

Description

This message occurs when a disk has been stalled too long.

Corrective Action

(None).

Syslog Message

I/O for disk %s has been suspended %d times for %d seconds.

Parameters

diskName (STRING): Name of the device.
count (INT): Count of times suspended.
error (INT): Time suspended.

disk.timeout events

disk.timeout.flush.end

Severity

NOTICE

Description

This message occurs when the disk driver stops flushing aggressive timeout I/Os.

Corrective Action

(None).

Syslog Message

Aggressive timeout flush ended on disk %s S/N %s.

Parameters

disk_name (STRING): Name of the disk.
serial_num (STRING): Serial number of the disk.

disk.timeout.flush.start

Severity

NOTICE

Description

This message occurs when an I/O operation is taking longer than expected and aggressive timeout I/Os are
flushed from the disk driver.

Corrective Action

(None).

Syslog Message

Aggressive timeout flush started on disk %s S/N %s. Details: %s.

Parameters

disk_name (STRING): Name of the disk.
serial_num (STRING): Serial number of the disk.
details (STRING): Additional information.

disk.toomanynvmespindles events

disk.tooManyNvmeSpindles

Severity

ALERT

Description

This message occurs when Data ONTAP® finds more NVMe disks present on a platform than the platform actually supports. Additional disks above the support number are ignored. Correct this issue before rebooting the system.

Corrective Action

Too many NVMe disks have been installed. Reconfigure the system to the maximum number of NVMe disks supported.

Syslog Message

Reached the maximum number of NVMe disks that are supported on this system of %d NVMe disks. All additional NVMe disks will be ignored. This problem must be resolved before the system is rebooted.

Parameters

maxSpindle (INT): Maximum number of NVMe disks supported on this platform.

disk.toomanypartitioneddisks events

disk.tooManyPartitionedDisks

Severity

ALERT

Description

This message occurs when Data ONTAP® finds more partitioned disks present on a platform than the platform supports. The system ignores any partitioned disks above the limit, and they will be unusable.

Corrective Action

Too many partitioned disks have been installed. Reconfigure the system to the maximum number of partitioned disks supported.

Syslog Message

Ignoring partitioned disk %s because the maximum limit of %d partitioned disks supported on this system has been reached.

Parameters

diskName (STRING): Name of the disk.
maxPartitionedDisks (INT): Maximum number of partitioned disks supported on this platform.

disk.toomanyreassignments events

disk.tooManyReassignments

Severity

NOTICE

Description

This message occurs when a reassignment fails due to table overflow.

Corrective Action

(None).

Syslog Message

Disk %s: sector %llu was NOT reassigned, too many reassignments.

Parameters

diskName (STRING): Name of the device.
error (LONGINT): Bad sector.

disk.toomanyspindles events

disk.tooManySpindles

Severity

ALERT

Description

This message occurs when Data ONTAP® finds more disks present on a platform than the platform actually supports. Additional disks above the support number are ignored. Correct this issue before rebooting the system.

Corrective Action

Too many disks have been installed. Reconfigure the system to the maximum number of disks supported.

Syslog Message

Found %d disks, but maximum of %d disks are supported on this system. All additional disks will be ignored. This problem must be resolved before the system is rebooted.

Parameters

actualSpindle (INT): Actual number of disks configured.
maxSpindle (INT): Maximum number of disks supported on this platform.

disk.uid events

disk.uid.changed

Severity

NOTICE

Description

This message occurs when a SCSI (Small Computer System Interface) INQUIRY command done during a disk drive initialization sequence finds different data in the INQUIRY response for page 0x83. The unique id (UID) derived from this information has changed unexpectedly.

Corrective Action

Locate the failed disk drive by looking for a disk drive whose amber LED fault light is lit. Replace the disk drive.

Syslog Message

Disk %s has unexpectedly changed its unique ID. vendor:%s product:%s serial_number:%s

Parameters

diskName (STRING): Name of the disk that had the UID change.
disk_vendor_id (STRING): Vendor name of the disk that had the UID change.
disk_product_id (STRING): Product name of the disk that had the UID change.
disk_serialno (STRING): Serial number of the disk that had the UID change.

disk.unabletorewritedata events

disk.unableToRewriteData

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP® receives too many errors reading from a particular location on an ATA disk drive, but its attempt to rewrite the data to the disk drive fails.

Corrective Action

(None).

Syslog Message

Difficulty reading disk drive %s with the command %s; could not rewrite the data.

Parameters

diskName (STRING): Name of the disk drive with the problem.
command (STRING): SCSI command that reported a problem.

disk.vendorspecificcode events

disk.vendorSpecificCode

Severity

ERROR

Description

This message occurs when a disk returns a vendor-specific error.

Corrective Action

Replace the disk.

Syslog Message

Drive %s has failed with a vendor specific error: class 0x%x segment 0x%x sense_key 0x%x info 0x%x 0x%x 0x%x 0x%x length 0x%x resv_1 0x%x sense_code %d sense_code_qualifier %d fru_failed 0x%x flags 0x%x field_pointer 0x%x.

Parameters

diskName (STRING): Name of the disk.
class (INTHEX): Sense class.
segment (INTHEX): Segment.
sense_key (INTHEX): Actual sense key.
info0 (INTHEX): Vendor-specific information[0].
info1 (INTHEX): Vendor-specific information[1].
info2 (INTHEX): Vendor-specific information[2]
info3 (INTHEX): Vendor-specific information[3].
len (INTHEX): Length.
resv (INTHEX): Resv field.
sense_code (INT): Actual sense code.
qualifier (INT): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.
flags (INTHEX): Flags of the error.
field_ptr (INTHEX): Sense field pointer.

disk.writeverifyerror events

disk.writeVerifyError

Severity

ERROR

Description

This message occurs when a write verify error occurs.

Corrective Action

(None).

Syslog Message

WRITE VERIFY on disk %s received an unexpected status %d.

Parameters

diskName (STRING): Name of the device.

error (INT): Returned error code

diskown events

diskown.aashelf events

diskown.AAShelf.InterPools

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign a disk because disks on the shelf and disks on the loop have the same owner but belong to different pools.

Corrective Action

1) Find all of the disks belonging to the same shelf, loop and owners as disk %s (S/N %s) by using the "storage disk show" command with the "-fields shelf, owner, dr-home, pool" option. 2) Assign all of the disks with the same owners on this shelf and other shelves to the same pool. Alternatively, manually assign all unowned disks belonging to this shelf.

Syslog Message

The controller could not automatically assign disk %s (S/N %s) and any other unassigned disks in the same shelf because the disks are shared across multiple pools within the same loop.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.AAShelf.MoreShelf

Severity

ERROR

Description

This message occurs when more than the supported number of shelves are connected to a storage stack.

Corrective Action

1) Check which adapter has more than the supported number of shelves attached by using the "run local storage show shelf" command. 2) Reconfigure the shelves so that the adapter is not connected to more than the supported number of shelves.

Syslog Message

(None).

Parameters

(None).

diskown.AAShelf.MultiOwners

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign disks because the disks on the shelf are owned by multiple systems.

Corrective Action

1) Find all of the disks belonging to the same shelf as disk %s (S/N %s) by using the "storage disk show" command. 2) View the list of systems by using the "run local disk show -v" command. 3) Either assign all of the disks on this shelf to a single system, or assign all unowned disks belonging to this shelf.

Syslog Message

The controller could not automatically assign disk %s (S/N %s) because disks on the shelf are owned by multiple systems. Because of this problem, the controller also could not assign any unowned disks on this shelf.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.AAShelf.MultiPools

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign a disk because the disks on the shelf are shared across multiple pools.

Corrective Action

1) Find all of the disks belonging to the same shelf as disk %s (S/N %s) by using the "storage disk show" command. 2) View the list of pools by using the "run local disk show -v" command. 3) Either assign all of the disks on this shelf to a single pool, or assign all unowned disks belonging to this shelf.

Syslog Message

The controller could not automatically assign disk %s (S/N %s) and any other unassigned disks in the same shelf because the disks are shared across multiple pools.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.AAShelf.NoMemory

Severity

ALERT

Description

This message occurs when the node cannot allocate memory for shelf-level automatic assignment.

Corrective Action

Initiate the automatic disk assign by running the "storage disk assign -auto true -node node-name" CLI command. If the out-of-memory condition persists, perform a manual disk assign.

Syslog Message

Memory not allocated for shelf-level automatic assignment.

Parameters

(None).

diskown.AAShelf.NoOwner

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign a disk because none of the disks on the shelf are owned by any system.

Corrective Action

1) Find all of the disks belonging to the same shelf as disk %s (S/N %s) by using the "storage disk show" command. 2) View the list of systems by using the "run local disk show -v" command. 3) Either assign all of unowned disks in this shelf or assign one of the disks on this shelf by using the "storage disk assign" command.

Syslog Message

The controller could not automatically assign disk %s (S/N %s) (and other unassigned disks in the same shelf, if any) because no disks on the shelf are owned by any system.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.assign events

diskown.assign.splitOwner

Severity

INFORMATIONAL

Description

This message occurs when the "storage disk assign" command fail to assign a disk to a different owner from the other disks within the carrier. This is because the "storage disk assign" command with the -f option must be used in such cases.

Corrective Action

Use the "storage disk assign" command with the -f option to assign the disk to a different owner from the other disks within the carrier.

Assigning ownership failed for disk %s. Use the "storage disk assign" command with the -f option to assign the disk to a different owner from the other disks within the carrier.

Parameters

diskname (STRING): Name of the disk.

diskown.assignexceeded events

diskown.AssignExceeded

Severity

ERROR

Description

This message occurs when an attempt is made to assign more disks than are supported by this node.

Corrective Action

Review the system capacity limits and the assigned disks on this system.

Syslog Message

The maximum number of disks that can be assigned to this node has been exceeded. Attempted to assign %d, maximum supported: %d.

Parameters

attempted (INT): Number of disks attempted to assign.
supported (INT): Number of disks supported.

diskown.autoassign events

diskown.AutoAssign.MultipleOwners

Severity

ERROR

Description

This message occurs when automatic assigning of a disk fails because the disks on the loop are owned by multiple systems.

Corrective Action

Use the "storage disk show" command to view the list of systems, and then assign all of the disks on this loop to a single system. Or use the "storage disk assign" command to manually assign this disk.

Syslog Message

Automatic assigning failed for disk %s (S/N %s) because the disks on the loop are owned by multiple systems. Automatic assigning failed for all unowned disks on this loop.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.AutoAssign.MultiplePools

Severity

ERROR

Description

This message occurs when automatic assigning of a disk fails because the disks on the loop are shared across multiple pools.

Corrective Action

Use the "storage disk assign -pool" command to assign all of the disks on this loop to a single pool. Or use the "storage disk assign" command to manually assign this disk.

Syslog Message

Automatic assigning failed for disk %s (S/N %s) because the disks on the loop are shared across multiple pools. Automatic assigning failed for all unowned disks on this loop.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.AutoAssign.NoOwner

Severity

ERROR

Description

This message occurs when automatic assigning of a disk fails because none of the disks on the loop are owned by any system.

Corrective Action

Use the "run local disk show -v" command to get the list of systems and unowned disks. Manually assign one of the disks on this loop by using the "storage disk assign" command.

Syslog Message

Automatic assigning failed for disk %s (S/N %s) because none of the disks on the loop are owned by any system. Automatic assigning failed for all unowned disks on this loop.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.

diskown.autoassignproblem events

diskown.AutoAssignProblem

Severity

ERROR

Description

This message occurs when Data ONTAP® attempts to assign a disk automatically, but the request fails. The failure could be due to a disk error or a user simultaneously assigning the disk to a storage system.

Corrective Action

Use the "disk show -v" nodeshell command to determine the status of the disk. Use the "storage disk assign" command to assign the disk.

Syslog Message

Automatic assigning failed for disk %s (S/N %s). Reason: %s

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.
reason (STRING): Reason for the failure.

diskown.bayctrlr events

diskown.bayctrlr

Severity

NOTICE

Description

This message occurs if the controller address is determined when the bay policy override option has been set. The controller address "A/B" is used to automatically assign the disks in odd/even bays.

Corrective Action

(None).

Syslog Message

Determined controller address %s based on shelf ID %d and slot number %d.

Parameters

ctrlr (STRING): Controller address.
shelfId (INT): ID of the shelf chosen to determine the controller address.
slot (INT): Slot number of the shelf chosen to determine the controller address.

diskown.bayctrlr.unknown

Severity

NOTICE

Description

This message occurs when disks in a shelf are not assigned to the current node.

Corrective Action

(None).

Cannot make determination of controller address.

Parameters

(None).

diskown.changingowner events

diskown.changingOwner

Severity

NOTICE

Description

This message occurs when the ownership of a disk is being changed.

Corrective Action

(None).

Syslog Message

The ownership of disk %s (S/N %s) is being changed from node "%s" (ID: %u, home ID: %u, DR home ID: %u) to node "%s" (ID: %u, home ID: %u, DR home ID: %u).

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.
oldownername (STRING): Name of the former owner node.
oldownerid (LONGINT): System ID of the former owner node.
oldhomeownerid (LONGINT): System ID of the former home node.
olddrhomeownerid (LONGINT): System ID of the former disaster recovery home node.
newownername (STRING): Name of the new owner node.
newownerid (LONGINT): System ID of the new owner node.
newhomeownerid (LONGINT): System ID of the new home node.
newdrhomeownerid (LONGINT): System ID of the new disaster recovery home node.
thread (STRING): Name of the thread that issued the ownership change request.
APIname (STRING): Name of the API that issued the ownership change request.

diskown.cleaningownership events

diskown.cleaningOwnership

Severity

INFORMATIONAL

Description

This message occurs when a "storage disk assign -f" command is run for an SES drive and the system discovers that the newly assigned owner already owns an SES drive on the same loop and shelf as the supplied drive. The assign is completed because it is a forced assign, but the error message is generated as an alert.

Corrective Action

(None).

Syslog Message

Disk %s (S/N %s) contains software-based disk ownership information that indicates it was previously in use by system ID %u. The ownership information is being cleared.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.
ownerid (INT): System ID of the system that owned the disk.

diskown.completion events

diskown.completion.timer.reEnabled

Severity

INFORMATIONAL

Description

This message occurs when the COMPLETION events from sanown layer remain after an aggregate is migrated form a source to a destination. Typically the events are enabled automatically, and if that doesn't happen with in a certain amount of time, the system reenables the COMPLETION events and logs this message.

Corrective Action

(None).

Syslog Message

Sanown completion event timer reenabled after a giveback.

Parameters

(None).

diskown.delayed events

diskown.delayed.completionEvent

Severity

INFORMATIONAL

Description

This message occurs when the software disk ownership module completes the process of updating its view of the disks attached to the system but delays notifying other layers of the completion of this process. Typically, this happens when an SFO aggregate giveback is in progress on the HA partner.

Corrective Action

(None).

Software disk ownership module temporarily delayed notification that it has completed updating its view of the disks.

Parameters

(None).

diskown.disk events

diskown.disk.already.deleted

Severity

ERROR

Description

This message occurs during an attempt to assign a disk that is being deleted. This can happen if the disk is deleted at the storage layer while disk assignment is in progress.

Corrective Action

Run the "run local disk show -v" command to see the list of available disks, and then retry the operation using one of the listed disks.

Syslog Message

Assign request failed for disk %s because it is being deleted.

Parameters

disk_name (STRING): Name of the disk that is being deleted.

diskown.diskhaswronginfo events

diskown.diskHasWrongInfo

Severity

ERROR

Description

This message occurs when the disk ownership information on a disk does not belong to the disk that it was read from. This could be a result of a read going to the wrong disk or a prior write intended for some other disk getting written to the disk.

Corrective Action

On the controller that owns the disk, use the "storage disk assign" command to rewrite the ownership information to the disk.

Syslog Message

Disk %s (S/N %s) has ownership information for disk %s (S/N %s) on it.

Parameters

diskname (STRING): Name of the disk from which the ownership information was read.
serialno (STRING): Serial number of the disk from which the ownership information was read.

infoForDiskname (STRING): Name of the disk that the ownership information is for.
infoForSerialno (STRING): Serial number of the disk that the ownership information is for.

diskown.disknotsup events

diskown.diskNotSup

Severity

INFORMATIONAL

Description

This message occurs when newly inserted disks are only supported with software disk ownership enabled, but it is not enabled.

Corrective Action

Halt the system by using the "halt" command, and then turn on software disk ownership by using the "storage disk assign" command. After you assign the disks, the system can recognize them.

Syslog Message

Newly added disk %s (and others) is only supported with software disk ownership enabled.

Parameters

disk (STRING): Name of the disk.

diskown.diskwasstolen events

diskown.diskWasStolen

Severity

NOTICE

Description

This event is issued when the ownership of a disk owned by the system is changed such that the disk is no longer owned by the system.

Corrective Action

(None).

Syslog Message

Disk %s (S/N %s) has had its ownership changed so that it is no longer owned by this system. This can lead to a system panic if the disk is a filesytem disk.

Parameters

diskname (STRING): The name of the disk
serialno (STRING): The serial number of the disk

diskown.drawer events

diskown.drawer.assignStatus

Severity

NOTICE

Description

This message occurs when drawer-based drive assignment for shelves with drawers is enabled or disabled.

Corrective Action

(None).

Syslog Message

Drawer-based automatic drive assignment for shelf "%d" is "%s".

Parameters

shelf_id (INT): Shelf identifier.
state (STRING): Drawer-based automatic drive assignment state..

diskown.drawer.invalidShlf

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign disks because the shelf is either offline, or temporarily unavailable, and therefore cannot be queried for the information that is required to properly assign the disks to the controller. This can also occur when multiple shelves in a cluster have the same shelf ID. Automatic disk assignment fails for the disks in this shelf until the shelf is back online or any shelf ID conflicts within a cluster are resolved.

Corrective Action

Use the "storage shelf show" command to verify that the specified shelf is online and to verify connectivity from the controller to all of the paths to the shelf. If multiple shelves in a cluster have the same shelf ID, resolve that and ensure that shelves in that cluster have different shelf IDs.

Syslog Message

The system cannot automatically assign disks for shelf "%d" because the shelf is in an invalid state.

Parameters

shelf_id (INT): Shelf identifier.

diskown.drawer.MultiOwners

Severity

ERROR

Description

This message occurs when the system cannot automatically assign disks because some of the disks are assigned to multiple systems in a conflicting manner.

Corrective Action

1) Find all of the disks belonging to the specified shelf by using the "storage disk show" command. 2) View the list of systems by using the "disk show -v" command. 3) Ensure that disks assigned on lower half bays of each drawer are owned by a single owner, and ensure that disks assigned on higher half bays of each drawer are owned by a different single owner. Disks assigned on lower half bays of each drawer must have a different owner than disks assigned on higher half bays.

Syslog Message

The system cannot automatically assign disks because the disks in shelf "%d" are assigned to multiple systems in a conflicting manner.

Parameters

shelf_id (INT): Shelf identifier.

diskown.duplicatesoftentries events

diskown.duplicateSoftEntries

Severity

NOTICE

Description

This event is issued when we find duplicate entries in the sanown filer table.

Corrective Action

(None).

Syslog Message

%s

Parameters

ems_txt (STRING): The warning message

diskown.errorduringio events

diskown.errorDuringIO

Severity

ERROR

Description

This event is issued when an I/O error occurs during a sanown disk operation.

Corrective Action

(None).

Syslog Message

error %d (%s) on disk %s (S/N %s) while %s

Parameters

> **errorno** (INT): The error number that occurred
> **errortext** (STRING): The error description as text
> **diskname** (STRING): The name of the disk
> **serialno** (STRING): The serial number of the disk
> **details** (STRING): The operation that was going on

diskown.errorreadingownership events

diskown.errorReadingOwnership

Severity

> NOTICE

Description

> This event is issued when we get an error while reading all the DOWNs at once. The recovery is to read them individually.

Corrective Action

> (None).

Syslog Message

> error %d (%s) while reading ownership on disk %s (S/N %s)

Parameters

> **errorno** (INT): The error that occurred
> **errortext** (STRING): The error description as text
> **diskname** (STRING): The name of the disk
> **serialno** (STRING): The serial number of the disk

diskown.generated events

diskown.generated.completionEvent

Severity

> INFORMATIONAL

Description

> This message occurs when the software disk ownership module notifies other layers that it has completed the process of updating its view of the disks attached to the system. These notifications were previously disabled for a short time.

Corrective Action

> (None).

Syslog Message

> Software disk ownership module notified other layers that it has completed updating its view of the disks.

Parameters

(None).

diskown.hlfshlf events

diskown.hlfShlf.assignStatus

Severity

NOTICE

Description

This message occurs when half-shelf based drive assignment is enabled or disabled.

Corrective Action

(None).

Syslog Message

Half-shelf based automatic drive assignment for shelf "%d" is "%s".

Parameters

shelf_id (INT): Shelf identifier.
state (STRING): Half-shelf based automatic drive assignment state.

diskown.hlfShlf.invalidShlf

Severity

NOTICE

Description

This message occurs when the controller cannot automatically assign disks to a shelf using half shelf-based disk assignment, either because the shelf is offline, or is temporarily unavailable and therefore cannot be queried for the information required to properly divide the disks for assignment to the controller. This can also occur when multiple shelves in a cluster have the same shelf ID. Automatic half shelf-based disk assignment is bypassed for disks in this shelf until the shelf is back online or any shelf ID conflicts within a cluster are resolved.

Corrective Action

Use the "storage shelf show" command to ensure that the specified shelf is online and to ensure connectivity from the controller to all paths to the shelf. If there are multiple shelves in a cluster with the same same shelf ID, resolve that and ensure that shelves in that cluster have different shelf IDs.

Syslog Message

Half shelf based disk assignment will be skipped for shelf "%d" because the shelf is in invalid state.

Parameters

shelf_id (INT): Shelf identifier.

diskown.hlfShlf.MultiOwners

Severity

NOTICE

Description

This message occurs when the controller cannot automatically assign disks using half shelf based disk assignment because disks in a shelf are assigned to multiple systems in a conflicting manner.

Corrective Action

1) Find all of the disks belonging to the shelf specified by using the "storage disk show" command. 2) View the list of systems by using the "run local disk show -v" command. 3) Ensure that disks assigned on lower half bays of the shelf are owned by a single owner. Similarly, ensure that disks assigned on higher half bays of that shelf are owned by a single owner. Ensure that disks assigned on lower half bays have a different owner than disks assigned on higher half bays.

Syslog Message

The controller cannot automatically assign disks using half shelf based disk assignment because disks in shelf "%d" are assigned to multiple systems in a conflicting manner.

Parameters

shelf_id (INT): Shelf identifier.

diskown.ilv events

diskown.ilv.hShlf.invShlf

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign drives to a shelf using interleaved-half-shelf-based drive assignment, either because the shelf is offline, or is temporarily unavailable and therefore cannot be queried for the information required to properly divide the drives for assignment to the controller. This can also occur when multiple shelves in a cluster have the same shelf ID. Automatic interleaved-half-shelf-based drive assignment is bypassed for drives in this shelf until the shelf is back online or any shelf ID conflicts within a cluster are resolved.

Corrective Action

Use the "storage shelf show" command to ensure that the specified shelf is online and to ensure connectivity from the controller to all paths to the shelf. Ensure that each shelf within the cluster has a unique shelfID.

Syslog Message

Interleaved-half-shelf-based drive assignment will be skipped for shelf "%d" because the shelf is in invalid state.

Parameters

shelf_id (INT): Shelf identifier.

diskown.ilv.hShlf.mOwners

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign drives using interleaved-half-shelf based drive assignment because drives in a shelf are assigned to multiple systems in a conflicting manner.

Corrective Action

1) Find all of the drives belonging to the shelf specified by using the "storage disk show" command. 2) View the list of systems by using the "run local disk show -v" command. 3) Ensure that drives assigned on first and third quarter bays of the shelf are owned by a single owner. Similarly, ensure that drives assigned on second and fourth quarter bays of that shelf are owned by a single owner. Ensure that drives assigned on first and third quarter bays have a different owner than drives assigned on second and fourth quarter bays.

Syslog Message

The controller cannot automatically assign drives using interleaved-half-shelf based drive assignment because drives in shelf "%d" are assigned to multiple systems in a conflicting manner.

Parameters

shelf_id (INT): Shelf identifier.

diskown.ilv.hShlf.status

Severity

NOTICE

Description

This message occurs when interleaved-half-shelf based drive assignment is either enabled or disabled.

Corrective Action

(None).

Syslog Message

Interleaved-half-shelf based automatic drive assignment for shelf %d is "%s".

Parameters

shelf_id (INT): Shelf identifier.
state (STRING): Interleaved-half-shelf based automatic drive assignment state.

diskown.incorrectownername events

diskown.IncorrectOwnerName

Severity

INFORMATIONAL

Description

This event is issued when we find a system finds a disk that it owns, but which has a different owner name than the system name.

Corrective Action

(None).

Syslog Message

Disk %s has incorrect owner name information (%s). It will be changed to match the system name (%s).

Parameters

diskname (STRING): The name of the disk for which this was observed
wrong_ownername (STRING): The owner name, which is incorrect, that the disk currently has
system_name (STRING): The system name that should be the owner name for the disk

diskown.isbeingenabled events

diskown.isBeingEnabled

Severity

INFORMATIONAL

Description

This event is issued when the system is being converted from non-software based disk ownership to software based disk ownership

Corrective Action

(None).

Syslog Message

System is being changed to use software based disk ownership

Parameters

(None).

diskown.isenabled events

diskown.isEnabled

Severity

INFORMATIONAL

Description

This event is issued when enable sanown.

Corrective Action

(None).

Syslog Message

software ownership has been enabled for this system

Parameters

(None).

diskown.mcc events

diskown.mcc.AssignExceeded

Severity

ERROR

Description

This message occurs when the number of drives assigned in the MetroCluster(tm) configuration exceeds the supported limit.

Corrective Action

Review the system capacity limits and the assigned drives on this system. If possible, unassign the unused array LUNs. If you need further assistance, contact NetApp technical support.

Syslog Message

The maximum number of drives that can be assigned in the configuration has exceeded. Total physical drive count: %d, maximum supported: %d.

Parameters

total_disk_count (INT): Total number of drives assigned in the configuration.
supported (INT): Number of drives supported.

diskown.mccip events

diskown.mccip.assignStatus

Severity

NOTICE

Description

This message occurs when MetroCluster(tm) quarter-shelf based drive assignment is enabled or disabled. It is enabled when the system is a member of an AFF HA pair in a 4-node MetroCluster IP configuration.

Corrective Action

(None).

Syslog Message

MetroCluster quarter-shelf based automatic drive assignment for shelf "%d" is "%s".

Parameters

shelf_id (INT): Shelf identifier.
state (STRING): MetroCluster quarter-shelf based automatic drive assignment state.

diskown.mccip.invalidShlf

Severity

ERROR

Description

This message occurs when the controller cannot automatically assign disks because the shelf is either offline, or temporarily unavailable and therefore cannot be queried for the information that is required to properly assign the disks to the controller. This can also occur when multiple shelves in a cluster have the same shelf ID. Automatic disk assignment fails for the disks in this shelf until the shelf is back online or any shelf ID conflicts within a cluster are resolved.

Corrective Action

Use the "storage shelf show" command to verify that the specified shelf is online and to verify connectivity from the controller to all of the paths to the shelf. If multiple shelves in a cluster have the same shelf ID, resolve that and ensure that shelves in that cluster have different shelf IDs.

Syslog Message

The system cannot automatically assign disks for shelf "%d" because the shelf is in an invalid state.

Parameters

shelf_id (INT): Shelf identifier.

diskown.mccip.MultiOwners

Severity

ERROR

Description

This message occurs when the system cannot automatically assign disks because some of the disks are assigned to multiple systems in a conflicting manner.

Corrective Action

1) Find all of the disks belonging to the specified shelf by using the "storage disk show" command. 2) View the list of systems by using the "disk show -v" command. 3) Ensure that the disks on each shelf are assigned such that lower half bays are assigned to the local high-availability (HA) pair and the higher half bays are assigned to the remote HA pair. Additionally within each half shelf, ensure that the disks are assigned equally to the HA pair such that the lower quarter bays are assigned to one node and the higher quarter bays are assigned to the node's HA partner.

Syslog Message

The system cannot automatically assign disks because the disks in shelf "%d" are assigned to multiple systems in a conflicting manner.

Parameters

shelf_id (INT): Shelf identifier.

diskown.ownerchangefailed events

diskown.ownerChangeFailed

Severity

ERROR

Description

This message occurs when a disk ownership change request fails.

Corrective Action

Verify that there are no disk connectivity issues, that disks are not in a failed state, and that the procedures for executing the "storage disk assign" command are being followed.

Syslog Message

Disk ownership change request failed on disk %s (S/N %s). Reason: %s.

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.
status (STRING): Description of the error in the ownership change request.
thread (STRING): Name of the thread that issued the ownership change request.
APIname (STRING): Name of the API that issued the ownership change request.

diskown.ownernameupdatefailed events

diskown.OwnerNameUpdateFailed

Severity

NOTICE

Description

This event is issued when we have to rewrite a DOWN because it is out of date wrt the other DOWNs.

Corrective Action

(None).

Syslog Message

owner name update failed for disk %s (S/N %s)

Parameters

diskname (STRING): The name of the disk
serialno (STRING): The serial number of the disk

diskown.ownerreservationmismatch events

diskown.ownerReservationMismatch

Severity

ERROR

Description

This message occurs when the system discovers a disk that is supposed to be owned by one node, but the persistent reservation is owned by another node.

Corrective Action

1) Find the disk causing the conflict from EMS messages. 2) If the disk is in the spare pool, go to step 5. 3) Run the "storage aggr status -r" command to find the aggregate containing the disk. 4) If the aggregate is online, bring it offline by using the "storage aggr modify -aggr aggr_name -state offline" command. 5) Run the "storage disk show -fields owner-id,reserver-id" command to identify the reservation owner of the disk. 6) Run the "storage disk assign disk_name -s partner_sys_id -f" command to perform the disk assignment change from the node that owns the reservation for the disk.

Syslog Message

disk %s (S/N %s) is supposed to be owned by this node but has a persistent reservation placed by node %s (ID %u).

Parameters

diskname (STRING): Name of the disk.
serialno (STRING): Serial number of the disk.
resvownername (STRING): Name of the system owning the reservation.
resvowner (INT): System ID of the node owning the reservation.

diskown.raid events

diskown.RAID.Ownershipchange

Severity

ERROR

Description

This message occurs when a disk assign or disk remove ownership request is rejected at the RAID layer.

Corrective Action

Review the error message and verify that the request was not for a file system disk.

Syslog Message

%s

Parameters

err_msg (STRING): Reason the request failed.

diskown.reassignfailed events

diskown.ReassignFailed

Severity

ERROR

Description

This message occurs when a disk reassign request fails.

Corrective Action

Verify that there are no disk connectivity issues and that the procedures for executing the 'storage disk reassign' command are being followed.

Syslog Message

Disk reassign request failed. Reason: %s.

Parameters

reason (STRING): Reason for failure.

diskown.releasingmismatchedreservation events

diskown.releasingMismatchedReservation

Severity

NOTICE

Description

This event is issued when we release the reservation because the DOWN says the disk is owned by someone else.

Corrective Action

(None).

Syslog Message

%s is releasing reservation on disk %s (S/N %s) as it is owned by %s (ID %u)

Parameters

originator (STRING): The internal component of diskown issuing the event
diskname (STRING): The name of the disk
serialno (STRING): The serial number of the disk
filername (STRING): The name of the filer that owns the disk
systemid (INT): The system id of the filer that owns the disk

diskown.replayingownership events

diskown.replayingOwnership

Severity

INFORMATIONAL

Description

This event occurs during a boot or takeover when a disk ownership request is replayed from NVRAM.

Corrective Action

(None).

Syslog Message

Replaying ownership request for %d disks

Parameters

diskcount (INT): The number of disks in the ownership request

diskown.replayingOwnership.Nv

Severity

ERROR

Description

This message occurs during takeover, when a disk ownership request is replayed from NVRAM but NVRAM corruption is detected.

Corrective Action

1) If you changed the ownership of disks on the partner in the last five minutes prior to takeover, verify their ownerships were stored by using the "storage disk show" command. 2) If you see this message often or in other modules, the partner's NVRAM card might be faulty and might need to be replaced.

Syslog Message

Failed to replay disk ownership because NVRAM corruption was detected.

Parameters

(None).

diskown.rescan events

diskown.rescan.notConnected

Severity

ERROR

Description

This message occurs when the high-availability (HA) messaging layer fails to connect to the specified node for disk ownership updates.

Corrective Action

Run the command "run local disk show -v" from the node specified in the node parameter to correct disk ownership.

Syslog Message

HA messaging layer on the local node failed to connect to node %s for disk ownership updates.

Parameters

node (STRING): Name of the node where disk ownership might be outdated.
status (INT): Error number returned by the HA messaging layer from the HA message error space.
scope (INT): Internal scope identifier for the module that returned the error.
scope_err (INT): Internal error number returned by the module.

diskown.rescan.notSent

Severity

ERROR

Description

This message occurs when the high-availability (HA) messaging layer fails to send a disk ownership update message.

Corrective Action

Run the command "run local disk show -v" from the node specified in the node parameter to correct disk ownership.

Syslog Message

HA messaging layer on the local node failed to send a disk ownership update message to node %s.

Parameters

node (STRING): Name of the node where disk ownership might be outdated.
status (INT): Error number returned by the HA messaging layer from the HA message error space.
scope (INT): Internal scope identifier for the module that returned the error.
scope_err (INT): Internal error number returned by the module.

diskown.rescanmessagefailed events

diskown.RescanMessageFailed

Severity

ERROR

Description

This message occurs while transferring the ownership of a disk to another node, when a rescan message is sent but does not go through.

Corrective Action

Use the "disk show" command on the nodeshell of %s for the node to rescan the disks which changed ownership.

Syslog Message

Could not send rescan message to %s.

Parameters

hostname (STRING): Name of the host that the message was sent to.

diskown.rescanwait events

diskown.rescanWait

Severity

INFORMATIONAL

Description

This message occurs when the disk ownership rescan code waits.

Corrective Action

(None).

Syslog Message

(None).

Parameters

status (STRING): Description on the type of wait.

diskown.rewriteowner events

diskown.rewriteOwner

Severity

NOTICE

Description

This event is issued when we have to rewrite a DOWN because it is out of date wrt the other DOWNs.

Corrective Action

(None).

Syslog Message

rewriting ownership information for disk %s (S/N %s)

Parameters

diskname (STRING): The name of the disk
serialno (STRING): The serial number of the disk

diskown.shareddsk events

diskown.sharedDsk.nonHACfg

Severity

ERROR

Description

This message occurs when a disk is shared by multiple nodes in a non-HA or stand-alone configuration. If the procedure to convert an HA configuration to a non-HA configuration is not followed properly, the system may end up either having disks whose partitions are owned by another node, or owning partitions on non-local disks.

Corrective Action

Refer to the High-Availability Configuration Guide.

Syslog Message

Either some local disks have partitions that are not owned by the local node, or the local node owns partitions on non-local disks.

Parameters

(None).

diskown.shlf events

diskown.Shlf.assignStatus

Severity

NOTICE

Description

This message occurs when shelf granular-based drive assignment is enabled or disabled. This is currently applicable for an MetroCluster(tm) IP configurations.

Corrective Action

(None).

Syslog Message

Shelf-based automatic drive assignment for shelf "%d" is "%s".

Parameters

shelf_id (INT): Shelf identifier.
state (STRING): Shelf-based automatic drive assignment state.

diskown.Shlf.MultiOwners

Severity

ERROR

Description

This message occurs when the system cannot automatically assign disks because some of the disks are assigned to multiple nodes in a conflicting manner. Until the disk assignments are corrected, the specified shelf will be excluded during auto assignment, and unowned disks on the shelf will be skipped.

Corrective Action

1) Find all of the disks belonging to the specified shelf by using the "storage disk show -fields owner,shelf" command. 2) Ensure that the disks on the shelf are assigned to a single system by manually assigning disks in the shelf to a single owner.

Syslog Message

The system cannot automatically assign disks because the disks in shelf %d are assigned to multiple nodes in a conflicting manner.

Parameters

shelf_id (INT): Shelf identifier.

diskown.split events

diskown.split.shelf.assignStatus

Severity

    NOTICE

Description

    This message occurs when any type of split-shelf automatic drive assignment is disabled.

Corrective Action

    (None).

Syslog Message

    Split-shelf based automatic drive assignment is "%s".

Parameters

    state (STRING): All split-shelf based drive assignment states.

diskown.statusreadownership events

diskown.statusReadOwnership

Severity

    INFORMATIONAL

Description

    This message occurs when an event is logged to track that an error was encountered while reading all data ownership blocks at once. Data ONTAP® will attempt to recover by reading each disk ownership block individually.

Corrective Action

    (None).

Syslog Message

    (None).

Parameters

    errorno (INT): Error that occurred.
    errortext (STRING): Error description as text.
    diskname (STRING): Name of the disk.
    serialno (STRING): Serial number of the disk.

diskown.stealingdisk events

diskown.StealingDisk

Severity

    NOTICE

Description

    This event is issued when a user reassigns a disk that is owned and has a reservation from another system.

Corrective Action

(None).

Syslog Message

Ownership for disk %s (S/N %s) is being stolen from node "%s" (System ID: %u).

Parameters

diskname (STRING): Name of the disk whose ownership is being reassigned.
serialno (STRING): Serial number of the disk.
hostname (STRING): Name of the host that currently owns the disk.
systemid (INT): System ID of the host that currently owns the disk.
thread (STRING): Name of the thread that issued the ownership change request.
APIname (STRING): Name of the API that issued the ownership change request.

diskown.stealingdiskprevented events

diskown.StealingDiskPrevented

Severity

NOTICE

Description

This message occurs when a "storage disk assign" operation is performed on a disk that is owned and has a reservation from another system. The reservation prevents the disk ownership change from being completed.

Corrective Action

Perform the "storage disk assign" operation on the system that currently owns the disk.

Syslog Message

Ownership for disk %s (S/N %s) cannot be changed because node "%s" (System ID: %u) currently owns the persistent reservation.

Parameters

diskname (STRING): Name of the disk whose ownership is being assigned.
serialno (STRING): Serial number of the disk.
hostname (STRING): Name of the host that currently owns the disk.
systemid (INT): System ID of the host that currently owns the disk.
thread (STRING): Name of the thread that issued the ownership change request.
APIname (STRING): Name of the API that issued the ownership change request.

diskown.uprevversion events

diskown.UpRevVersion

Severity

NOTICE

Description

This message occurs when disk ownership information has been read and found to be from a version that is

higher (newer) than what the current version of Data ONTAP understands. New fields in the ownership information will be ignored.

Corrective Action

(None).

Syslog Message

(None).

Parameters

diskname (STRING): The name of the disk with the newer version.
serialno (STRING): The serial number of the disk.
foundversion (INT): The version of the disk ownership information found on the disk.
curversion (INT): The version of the disk ownership information that the current Data ONTAP uses.

diskown.waitingforreassign events

diskown.WaitingForReassign

Severity

NOTICE

Description

This message occurs when a giveback is occurring and the "storage disk reassign" is in progress. The giveback must wait until the reassign operation is complete.

Corrective Action

(None).

Syslog Message

Waiting for ownership of the partner disks to be updated as a result of a "storage disk reassign" command.

Parameters

(None).

diskshelf events

diskshelf.psu events

diskShelf.psu.added

Severity

NOTICE

Description

This message occurs when a power supply unit is added to the disk shelf.

Corrective Action

(None).

Syslog Message

%s power supply was added to %s.shelf%d

Parameters

location (STRING): Which power supply was added.
channelName (STRING): Channel connected to disk shelf.
shelfIdent (INT): ID number displayed on the disk shelf OPS panel.
serialNumber (STRING): Serial number of disk shelf.

diskShelf.psu.removed

Severity

ERROR

Description

This message occurs when a power supply unit is removed from the disk shelf.

Corrective Action

Insert a functional power supply unit into the disk shelf.

Syslog Message

%s power supply was removed from %s.shelf%d

Parameters

location (STRING): Which power supply was removed.
channelName (STRING): Channel connected to disk shelf.
shelfIdent (INT): ID number displayed on the disk shelf OPS panel.
serialNumber (STRING): Serial number of disk shelf.

diskshelf.support events

diskShelf.support.file

Severity

NOTICE

Description

This message occurs when a new disk shelf support file is detected. Current support level of existing shelves will be checked.

Corrective Action

(None).

Syslog Message

New disk shelf support file (DQP) detected.

Parameters

(None).

diskshelf.supported events

diskShelf.supported

Severity

NOTICE

Description

This message occurs when a newly supported disk shelf is detected.

Corrective Action

(None).

Syslog Message

Disk shelf %s (%s) is now supported.

Parameters

device (STRING): Device address of the disk shelf.
product_id (STRING): Product ID of the disk shelf.

diskshelf.unsupported events

diskShelf.unsupported

Severity

ALERT

Description

This message occurs when ONTAP® software detects an unsupported disk shelf.

Corrective Action

Verify that the disk shelf attached is supported by the version of ONTAP running on the storage controller. If the disk shelf is supported, replace the disk shelf module.

Syslog Message

Disk shelf %s (%s) is unsupported.

Parameters

device (STRING): Device address of the disk shelf.
product_id (STRING): Product ID of the disk shelf.

dlock events

dlock.release events

dlock.release.error

Severity

ERROR

Description

This message occurs when ONTAP® software reports an error while attempting to release an internal lock. This might impact services like Application-aware data management.

Corrective Action

Run the node local "dlock show" diag-level command to confirm whether the lock still exists. If the lock exists, run the node local "dlock release" diag-level command to clear the lock. If the lock does not exist, then the error was likely transient and can be ignored. Contact NetApp technical support for more information or assistance.

Syslog Message

Failed to release internal lock. Lock ID: "%s". Owner ID: "%s". Reason: %s.

Parameters

lockid (STRING): Lock ID.
ownerid (STRING): Owner ID.
error (STRING): Error that was encountered.

dm events

dm.cluster events

dm.cluster.rebaselinefailed

Severity

ERROR

Description

This message occurs when resynchronization of the cluster configuration failed in a MetroCluster(tm) configuration.

Corrective Action

Use the "metrocluster check config-cluster resync" command to resynchronize the cluster configuration.

Syslog Message

Cluster configuration resynchronization failed for cluster %s.

Parameters

cluster (STRING): Name of the cluster whose configuration is being replicated.

dm.vserver events

dm.vserver.mcc.rebaselinefailed

Severity

ERROR

Description

This message occurs when resynchronization of the Vserver configuration failed in a MetroCluster(tm) configuration.

Corrective Action

Use the "metrocluster vserver resync" command to resynchronize the Vserver configuration.

Syslog Message

Vserver configuration resynchronization failed for Vserver %s.

Parameters

vserver (STRING): Name of the Vserver whose configuration is being replicated.

dm.vserver.sm.rebaselinefailed

Severity

ERROR

Description

This message occurs when resynchronization of the Vserver configuration failed in a Vserver DR

relationship.

Corrective Action

Use the "snapmirror resync" command to resynchronize the Vserver configuration.

Syslog Message

Vserver configuration resynchronization failed for Vserver %s.

Parameters

vserver (STRING): Name of the Vserver whose configuration is being replicated.

dm.vserver.unlockfailed

Severity

ERROR

Description

This message occurs when unlocking the Vserver failed after resynchronization of the Vserver configuration in a MetroCluster(tm) configuration or Vserver DR setup. Management operations on this Vserver will fail, until an unlock operation is done by the admin manually.

Corrective Action

Use the "vserver unlock -force true" command at diagnostic privilege to manually unlock the Vserver.

Syslog Message

Vserver unlock failed for Vserver %s.

Parameters

vserver (STRING): Name of the Vserver whose unlock operation failed.

dml events

dml.drive events

dml.drive.offline.status

Severity

NOTICE

Description

This message occurs when drive offline completes.

Corrective Action

(None).

Syslog Message

Drive offline request for drive %s %s, (%d).

Parameters

drive_name (STRING): Drive name.
status_str (STRING): Drive offline status string.
status_code (INT): Drive offline status code.

dml.drive.online.status

Severity

NOTICE

Description

This message occurs when drive online completes.

Corrective Action

(None).

Syslog Message

Drive online request %s %s, (%d).

Parameters

drive_name (STRING): Drive name.
status_str (STRING): Drive online status string.
status_code (INT): Drive online status code.

dml.fae events

dml.fae.key.import.failed

Severity

ERROR

Description

This message occurs when the Device Management Layer fails to import key material.

Corrective Action

Verify whether aggregate keys are required. Retry the key transport operation.

Syslog Message

Key import failed. Reason: %s.

Parameters

reaon (STRING): Failure reason.

dml.init events

dml.init.fail

Severity

ERROR

Description

This message occurs when the Device Management Layer (DML) fails initialization.

Corrective Action

Retry the startup.

Syslog Message

Firestorm initialization failed with error code (%d).

Parameters

error_code (INT): Failure code.

dml.initialized events

dml.initialized

Severity

NOTICE

Description

This message occurs when the Device Management Layer (DML) is started.

Corrective Action

(None).

Syslog Message

DML initialized.

Parameters

(None).

dms events

dms.restserver events

dms.restserver.ssl.disabled

Severity

ERROR

Description

This message occurs when the system hits an error in enabling SSL authentication in the rest server.

Corrective Action

Check that the SSL certificates and keys given to the rest server are accessible and valid.

Syslog Message

Failed to set SSL authentication in DMAP rest server due to %s

Parameters

error (STRING): Text describing the error.

dns events

dns.disabled events

dns.disabled.configs.removed

Severity

NOTICE

Description

This message occurs when the last system to be upgraded in a cluster removes DNS configurations that were marked as disabled.

Corrective Action

(None).

Syslog Message

All DNS configurations with the "-state" parameter set to "disabled" were removed.

Parameters

(None).

dns.server events

dns.server.timed.out

Severity

ERROR

Description

This message occurs when the DNS server fails to respond to a query and timeout occurs.

Corrective Action

Make sure that the DNS server is up and running and that there are no networking issues preventing the Vserver from communicating with the DNS server.

Syslog Message

DNS server %s did not respond to vserver = %s within timeout interval.

Parameters

ipaddr (STRING): Ip address of the DNS server.
vsName (STRING): Name of the Vserver for which DNS response timed out.

download events

download.request events

download.request

Severity

NOTICE

Description

This event is generated when a user-initiated download is initiated.

Corrective Action

(None).

Syslog Message

Operator requested download initiated

Parameters

(None).

download.requestdone events

download.requestDone

Severity

NOTICE

Description

This event is generated when a user-initiated download has completed.

Corrective Action

(None).

Syslog Message

Operator requested download completed

Parameters

(None).

download.requestdoneerror events

download.requestDoneError

Severity

ERROR

Description

This event is generated when a user-initiated download did not complete successfully because of a problem. See console log for problem and corrective action.

Corrective Action

(None).

Syslog Message

Operator requested download failed.

Parameters

(None).

ds events

ds.sas events

ds.sas.config.warning

Severity

ERROR

Description

This message occurs when the system detects a configuration problem on the shelf I/O module.

Corrective Action

Reseat the disk shelf I/O module. If that does not fix the problem, replace the disk shelf I/O module.

Syslog Message

Configuration error on Serial Attached SCSI (SAS) I/O module %s channel %s shelf ID %lld - %s of %d expected %d

Parameters

module_id (STRING): Module (A or B) that is experiencing the problem.
channel (STRING): Channel of the shelf that is experiencing the problem.
shelfId (LONGINT): Shelf ID of the shelf that is experiencing the problem.
desc (STRING): Description of the parameter that is misconfigured.
actual (INT): Actual value for this configuration parameter on the shelf I/O module.
expected (INT): Expected value for this configuration parameter on the disk shelf I/O module.

ds.sas.drivephy.disableErr

Severity

ERROR

Description

This message occurs when a drive physical layer device (phy) on a Serial Attached SCSI (SAS) I/O module is disabled due to one of the following reasons: manually bypassed; exceeded loss of double word synchronization threshold; exceeded running disparity threshold Transmitter fault; exceeded CRC error threshold; exceeded invalid double word threshold; exceeded phy reset problem threshold; exceeded broadcast change threshold; or mirroring disabled on the other I/O module.

Corrective Action

Replace the disabled disk drive.

Syslog Message

Disk %s%s on channels %s shelf ID %lld %s bay %s %s.

Parameters

phy (STRING): Physical layer device (phy) that is being disabled.
disk_data (STRING): Disk data includes vendor name, model, firmware revision and the serial number of the disabled disk. If unable to access the disk then, this field is blank.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED

if unconnected.
shelfID (LONGINT): Shelf ID of the disk shelf reporting the error.
element (STRING): IOM (I/O module) designator (A or B).
bay (STRING): Bay in which the disk is installed.
reason (STRING): Reason the disk phy was disabled.

ds.sas.element.fault

Severity

ERROR

Description

This message occurs when a Serial Attached SCSI (SAS) module in a disk shelf reports an error.

Corrective Action

Check cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

State of shelf module %s is %s on channels %s shelf ID %d

Parameters

element (STRING): Shelf module designator (A or B).
state (STRING): Current state of IOM.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.

ds.sas.element.xport.error

Severity

ERROR

Description

This message occurs when a Serial Attached SCSI (SAS) disk shelf module reports a transport error.

Corrective Action

Check cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

Shelf module %s XPORT ERROR on channels %s shelf ID %d

Parameters

element (STRING): Shelf module designator (A or B).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.

ds.sas.hostphy.disableErr

Severity

ALERT

Description

This message occurs when a host physical layer device (phy) on a Serial Attached SCSI (SAS) I/O module is disabled due to one of the following reasons: Invalid SAS2-SAS3 Transition; manually bypassed; exceeded loss of double word synchronization threshold; exceeded running disparity threshold; transmitter fault; exceeded CRC error threshold; exceeded invalid double word threshold; exceeded phy reset problem threshold; exceeded broadcast change threshold; or mirroring disabled on the other I/O module.

Corrective Action

If the Host phys were disabled because of an invalid transition, remove the SAS cable on the disabled phys completely from both IOMs and then recable correctly. Removing the cable completely allows both IOMs to reset. For other disabled host phy conditions, replace the shelf module to which the affected host phy belongs.

Syslog Message

Port %s on channels %s shelf ID %lld %s %s.

Parameters

phy (STRING): Host port that is being disabled.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (LONGINT): Shelf ID of the shelf reporting the error.
element (STRING): I/O module designator (A or B).
reason (STRING): Reason the host phy was disabled.

ds.sas.id.conflict.cleared

Severity

NOTICE

Description

This message occurs when a shelf ID conflict on a channel reported earlier is resolved.

Corrective Action

(None).

Syslog Message

Shelf ID conflict on channel %s (shelf ID: %lld, S/N: %s) was cleared.

Parameters

channel (STRING): Channel that the shelf is attached to.
shelfId (LONGINT): Shelf ID.
SerialNumber (STRING): Shelf serial number.

ds.sas.id.conflict.detected

Severity

ERROR

Description

This message occurs when a SAS shelf ID conflict is detected on a channel.

Corrective Action

Ensure that all of the disk shelves in a high-availability pair have a unique shelf ID. For instructions, see "Changing the disk shelf ID" in the Disk Shelf Installation and Service Guide for the shelf model.

Syslog Message

SAS shelf on channel %s (shelf ID: %lld, S/N: %s) reported a shelf ID conflict.

Parameters

channel (STRING): Channel that the shelf is attached to.
shelfId (LONGINT): Shelf ID.
SerialNumber (STRING): Shelf serial number.

ds.sas.multPhys.disableErr

Severity

ALERT

Description

This message occurs when the system detects that multiple Physical Layer Devices (PHYs) are disabled on a SAS disk shelf.

Corrective Action

Check whether the problems on the PHYs are valid by looking for PHY errors in nearby events. If multiple PHYs are disabled at the same time in a particular disk shelf module, replace the disk shelf module.

Syslog Message

Multiple phys have been disabled on the disk shelf %d on Channels %s, %s.

Parameters

shelfID (INT): ID of the disk shelf reporting the error.
channels (STRING): Channels that have the error. "Channel" can be an adapter port, (for example, 0c), or PARTNER for high-availability partner, or UNUSED if unconnected.
element (STRING): Disk shelf module designator (A or B).

ds.sas.ses.disableErr

Severity

ALERT

Description

This message occurs when a virtual (SES) physical layer device (phy) on a Serial Attached SCSI (SAS) I/O module is disabled due to to one of the following reasons: manually bypassed; exceeded loss of double word synchronization threshold; exceeded running disparity threshold Transmitter fault; exceeded CRC error threshold; exceeded invalid double word threshold; exceeded phy reset problem threshold; or exceeded broadcast change threshold.

Corrective Action

Replace the shelf module.

Syslog Message

SES phy on channel %s shelf ID %lld module %s is disabled.

Parameters

channel (STRING): Channel that has the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (LONGINT): Shelf ID of the shelf reporting the error.
element (STRING): I/O module designator (A or B).

ds.sas.xfer.element.fault

Severity

ERROR

Description

This message occurs when an element had a fault during an I/O request. It might be due to a transient condition in link connectivity.

Corrective Action

Check cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

I/O failure on shelf module %s on channels %s shelf id %d, status is %s.

Parameters

element (STRING): Shelf module designator (A or B).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.
state (STRING): Current state of IOM.

ds.sas.xfer.not.sent

Severity

ERROR

Description

This message occurs when an I/O transfer could not be sent. It might be due to a transient condition in link connectivity.

Corrective Action

Check cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

Shelf module %s I/O failure NOT_SENT channels %s shelf ID %d

Parameters

element (STRING): Shelf module designator (A or B).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.

ds.sas.xfer.unknown.error

Severity

EMERGENCY

Description

This message occurs when an unknown error occurs during an I/O request.

Corrective Action

Ensure that the shelf module firmware and ONTAP® software are compatible versions. Find firmware versions at the NetApp technical support web site.

Syslog Message

Shelf module %s I/O failure UNKNOWN: %d channels %s shelf id %d

Parameters

element (STRING): Shelf module designator (A or B).
status (INT): Error status code.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.

ds.sas.xfer.xport.error

Severity

ERROR

Description

This message occurs when a transport error occurs during an I/O request. It might be due to a transient condition in link connectivity.

Corrective Action

Check cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

Shelf module %s I/O failure TRANSPORT_ERROR channels %s shelf ID %d.

Parameters

element (STRING): Shelf module designator (A or B).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Shelf ID (0-99) of the shelf reporting the error.

dump events

dump.bitmap events

dump.bitmap.fail

Severity

ERROR

Description

This event is generated during dump restarting and looking for the bitmap file and it is unable to locate

Corrective Action

(None).

Syslog Message

Missing bitmap files.

Parameters

(None).

dump.fail events

dump.fail.snapreserve

Severity

ERROR

Description

This event is generated while dump is trying to restart and there is no space left in the snap reserve

Corrective Action

Please increase the snap reserve space to avoid this error.

Syslog Message

Snapshots overflow reserved space.

Parameters

(None).

dump.file events

dump.file.has.security.label

Severity

NOTICE

Description

This message occurs when the dump engine encounters an NFS security label during any type of dump operation. The dump engine does not back up any NFS security labels but skips them and continues.

Corrective Action

(None).

Syslog Message

The dump engine encountered one or more inodes with NFS security labels. The dump engine will back up the inodes but will not back up the associated security labels.

Parameters

src_path (STRING): Path being backed up.

dump.inconsistent events

dump.inconsistent.acl_data

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in an ACL file in a Snapshot(tm) copy. Backup will abort.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d): WAFL ACL data inconsistent due to disk errors. Aborting the backup.

Parameters

src_path (STRING): Source path being backed up.
snap_id (INT): ID of the Snapshot copy where the disk error was encountered.

dump.inconsistent.file_data

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in a file in a Snapshot(tm) copy. Backup will abort because the user selected the option to abort on disk error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d), inum (%u): WAFL data inconsistent due to disk errors. Aborting the backup as directed by ndmpd.abort_on_disk_error option.

Parameters

> **src_path** (STRING): Source path being backed up.
> **snap_id** (INT): ID of the Snapshot copy where the disk error was encountered.
> **inum** (INT): Inode number of the file that encountered the disk error.

dump.inconsistent.ind_buf

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in indirect buffers of a file in a Snapshot(tm) copy. Backup will abort because the user selected the option to abort on disk error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d), inum (%u): WAFL metadata and data inconsistent due to disk errors. Aborting the backup as directed by ndmpd.abort_on_disk_error option.

Parameters

> **src_path** (STRING): Source path being backed up.
> **snap_id** (INT): ID of the Snapshot copy where the disk error was encountered.
> **inum** (INT): Inode number of the file that encountered the disk error.

dump.inconsistent.stream_data

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in a stream associated with a file in a Snapshot(tm) copy. Backup will abort because the user selected the option to abort on disk error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d), stream inum (%u), base inum(%u): WAFL data inconsistent due to disk errors. Aborting the backup as directed by ndmpd.abort_on_disk_error option.

Parameters

> **src_path** (STRING): Source path being backed up.
> **snap_id** (INT): ID of the Snapshot copy where the disk error was encountered.
> **sinum** (INT): Inode number of the stream that encountered the disk error.
> **inum** (INT): Inode number of the basefile whose associated stream encountered the disk error.

dump.inconsistent.wafl_metadata

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in either the inode file, a directory or a stream directory in a Snapshot(tm) copy. As a result of this error, the backup is aborted.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d): WAFL metadata inconsistent due to disk errors. Aborting the backup.

Parameters

src_path (STRING): Source path being backed up.
snap_id (INT): ID of the Snapshot copy where the disk error was encountered.

dump.inconsistent_streamdir_lunclone events

dump.inconsistent_streamdir_lunclone

Severity

ERROR

Description

This message occurs when the dump engine encounters a disk error in a stream directory of an inconsistent LUN clone in a Snapshot(tm) copy. Backup will abort because the user selected the option to abort on disk error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s), Snapshot copy ID (%d): WAFL metadata inconsistent due to disk errors. Aborting the backup.

Parameters

src_path (STRING): Source path being backed up.
snap_id (INT): ID of the Snapshot copy where the disk error was encountered.

dump.max events

dump.max.limit

Severity

ERROR

Description

This message occurs when new dump or restore sessions cannot be started because the limit for this platform has been reached.

Corrective Action

Dump/restore operation limit has been reached for this platform.

Syslog Message

Maximum limit of dump/restore sessions (%d) has been reached.

Parameters

max_limit (INT): Maximum dump and restore session limits.

dump.notify events

dump.notify.backward.ctime

Severity

ALERT

Description

This message occurs when the dump incremental backup might be incomplete. When setting ctime to past values is allowed, files copied to volumes through SMB/CIFS might have timestamps that are in the past compared to the time of copy. If an inode number is reused for the files with timestamps in the past that were copied into the volume after the last backup, the files will be missed in the incremental backup.

Corrective Action

Disable updates to ctime with past values by setting "bootarg.wafl.allow_ctime_backward" to "false", reboot the nodes, and then start a new backup chain from the baseline. For more information on the workaround, contact Technical Support.

Syslog Message

The incremental backup (Dump name = "%s", Snapshot copy ID = "%d") might be incomplete because setting ctime to past values is allowed on this node.

Parameters

dump_name (STRING): Dump name.
snap_id (INT): ID of the Snapshot copy being backed up.

dump.register events

dump.register.commit

Severity

ERROR

Description

This event is generated when a registry transaction failed to commit

Corrective Action

(None).

Syslog Message

Failed to flush backup table entry upgrade to registry: %s

Parameters

subject (STRING): Error description

dump.register.create

Severity

ERROR

Description

This event is generated when a registry creation is failed. Memory allocation failure

Corrective Action

(None).

Syslog Message

Failed to create a registry transaction for dump(%d).

Parameters

dump_id (INT): Dump ID

dump.register.set

Severity

ERROR

Description

This event is generated when a registry is tried to set and failed because a freed transaction is being tried to set

Corrective Action

(None).

Syslog Message

Failed to write context update information to registry.

Parameters

(None).

dump.snapshot events

dump.snapshot.fail

Severity

ERROR

Description

This event is generated during dump restarting and looking for the snapshot that was created by the dump while it was terminating last time and we are unable to locate the snapshot

Corrective Action

(None).

Syslog Message

Unable to locate snapshot needed by dump context ID (%d).

Parameters

dump_id (INT): Dump ID

dump.terminate events

dump.terminate

Severity

NOTICE

Description

This event is generated during dump termination, we see if we can retrieve the name of the dump. If we are unable to retrieve the name of the dump then dump id that is terminated is notified or else both dump id and name of the dump are notified

Corrective Action

(None).

Syslog Message

Terminating dump(%d)%s

Parameters

dump_id (INT): Dump ID
dump_name (STRING): Dump Name

dump.terminate.reserved

Severity

NOTICE

Description

This event is generated when we tried to terminate dump and have checked if dump is in the reserved state. This is just a notification message for dump termination and it is also restartable.

Corrective Action

(None).

Syslog Message

Terminating restartable dump(%d)

Parameters

dump_id (INT): Dump ID

dump.transit events

dump.transit.fail

Severity

ERROR

Description

This event is generated when the failover is still in transit while waiting for the dump to be initialized

Corrective Action

(None).

Syslog Message

Failover is still in transit.

Parameters

(None).

dump.volume events

dump.volume.memory

Severity

NOTICE

Description

This event is generated when we are trying to dump a volume which is full and we cannot write the offsetmap on to the disk and we are using memory instead of disk to do this.

Corrective Action

Please free up some of the disk space for this volume in order to avoid this memory consumption.

Syslog Message

DUMP using memory due to lack of disk space on /vol/%s.

Parameters

vol_name (STRING): Name of the volume that is full which needs to be freed

dump.xfercomplete events

dump.xfercomplete.inconsistent_data

Severity

ERROR

Description

This message occurs when the dump engine completes data backup with disk errors in user files.

Corrective Action

Contact NetApp technical support.

Syslog Message

Dump of source path (%s): One or more files in the backup encountered disk errors. Refer to /etc/log/backup for a list of files that encountered disk errors.

Parameters

src_path (STRING): Source path being backed up.

dyn events

dyn.auth events

dyn.auth.custom.comp.error

Severity

ERROR

Description

This message occurs when the custom trust score component of the Dynamic Authorization feature encounters an error. When an error occurs, the minimum score is assigned from the component for trust score calculations.

Corrective Action

Verify that the configured custom trust score component has a reachable uniform resource identifier (URI) provider, valid score field and returns a score between configured minimum and maximum values.

Syslog Message

Error encountered in the custom trust score component of the Dynamic Authorization feature. Reason: %s.

Parameters

reason (STRING): Reason for the error.

dyn.auth.history.comp.error

Severity

ERROR

Description

This message occurs when the authentication history trust score component of the Dynamic Authorization feature encounters an error with the data present in the authentication statistics table. When an error occurs, the minimum score is assigned from the component for trust score calculations.

Corrective Action

Use the "security dynamic-authorization user-trust-score reset" command to reset the trust score of the user for the Authentication History trust score component in a storage virtual machine (SVM).

Syslog Message

Error encountered in the authentication history trust score component of the Dynamic Authorization feature. Reason: %s.

Parameters

reason (STRING): Reason for the error.

ekmip events

ekmip.akv events

ekmip.akv.available

Severity

NOTICE

Description

This message occurs when a configured Azure Key Vault (AKV) that was previously reported unavailable for key operations is now available.

Corrective Action

(None).

Syslog Message

The AKV Key Management Service is now available. AKV configuration details, SVM: "%s", configuration name: "%s", AKV name: "%s".

Parameters

svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
configName (STRING): Name of the AKV configuration.
name (STRING): Uniform resource identifier (URI) of the AKV.

ekmip.akv.keyExpired

Severity

ERROR

Description

This message occurs when the current key version associated with the key identifier of the configured Azure Key Vault (AKV) has expired. The key version might be out of compliance. It is recommended that you update the key version to an active, non-expired key. ONTAP is still able to unwrap the top-level internal key protection key with the expired key version and there is no interruption to data availability.

Corrective Action

Update the key-ID to an active, non-expired key at the AKV portal.

Syslog Message

The AKV key version has expired. Key ID: "%s". AKV configuration details, SVM: "%s", configuration name: "%s", AKV name: "%s".

Parameters

keyId (STRING): Key ID.
svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
configName (STRING): Name of the AKV configuration.
name (STRING): Uniform resource identifier (URI) of the AKV.

ekmip.akv.keyVersionChanged

Severity

NOTICE

Description

This message occurs when the current key version associated with the key identifier of the configured Azure Key Vault (AKV), the AKV key-ID, changes. The key version might have been auto-rotated or manually changed at the AKV. Additionally, the top-level internal key protection key has been successfully re-wrapped with the current key version of the AKV key-ID.

Corrective Action

(None).

Syslog Message

The AKV key version has been changed. AKV configuration details, SVM "%s", configuration name "%s", AKV: "%s", previous key version: "%s", current key version: "%s".

Parameters

svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
configName (STRING): Name of the AKV configuration.
name (STRING): Uniform resource identifier (URI) of the AKV.
oldKeyVersion (STRING): Previous key version.
newKeyVersion (STRING): Current key version.

ekmip.akv.notAvailable

Severity

ALERT

Description

This message occurs when a check for the availability of the configured Azure Key Vault (AKV) for key operations fails. The AKV might be down or there might be a network-related problem preventing communication. Without access to the AKV, the node might not be able to restore authentication keys needed to unlock NetApp Storage Encryption (NSE) or SED drives, or encryption keys needed to mount encrypted volumes. If the AKV is unavailable the next time this node boots, then the failure to restore the keys might prevent the node from booting successfully or prevent the encrypted volumes hosted on this node from coming online.

Corrective Action

Ensure that the AKV configuration is correct by using the "security key-manager external azure show -vserver <vserver>" command and verifying that the cluster state is available. If it is not available, run the "security key-manager external azure restore" command to bring the cluster state to available. If the issue still persists, contact technical support.

Syslog Message

The AKV Key Management Service is not available. AKV configuration details, SVM: "%s", configuration name: "%s", AKV name: "%s".

Parameters

svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
configName (STRING): Name of the AKV configuration.

name (STRING): Uniform resource identifier (URI) of the AKV.

ekmip.akv.volOffline

Severity

ALERT

Description

This message occurs when the SVM has been blocked and any encrypted volumes belonging to the SVM have been taken offline due to errors received when attempting to access the key owned by the Azure Key Vault (AKV). Reasons for AKV key access errors include a disabled key, a key not being found and a key missing encryption and decryption privileges. ONTAP polls the AKV every 15 minutes to verify key accessibility. If, for 60 minutes, ONTAP does not receive a successful response to a poll, all encrypted volumes are taken offline and remain offline until the key access issues are resolved at the AKV. When ONTAP does receive a successful response, the volumes are brought back online automatically.

Corrective Action

Resolve the key access issues at the AKV portal. Ensure that the key is active and has the required encryption and decryption privileges.

Syslog Message

The SVM has been blocked and any encrypted volumes belonging to the SVM have been taken offline due to key access errors. AKV configuration details, SVM: "%s", configuration name "%s", key ID: "%s", AKV name: "%s".

Parameters

svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
keyId (STRING): Key ID.
name (STRING): Uniform resource identifier (URI) of the AKV.
configName (STRING): Name of the AKV configuration.

ekmip.akv.volOnline

Severity

NOTICE

Description

This message occurs when the volumes configured on the Azure Key Vault (AKV) that were unavailable due to key access issues are now back online.

Corrective Action

(None).

Syslog Message

Encrypted volumes belonging to the SVM are now back online. AKV configuration details, SVM: "%s", configuration name: "%s", key ID "%s", AKV name: "%s".

Parameters

svm (STRING): Name of the storage virtual machine (SVM) where the AKV is configured.
name (STRING): Uniform resource identifier (URI) of the AKV.
configName (STRING): Name of the AKV configuration.
keyId (STRING): Key ID.

ekmip.awskms events

ekmip.awskms.available

Severity

NOTICE

Description

This message occurs when a configured Amazon Web Services (AWS) Key Management Service (KMS) that was unavailable for key operations is now available.

Corrective Action

(None).

Syslog Message

The AWS KMS with region: "%s" and key ID: "%s" configured for Vserver "%s" is now available.

Parameters

region (STRING): AWS KMS region.
keyId (STRING): Key ID.
vserver (STRING): Name of the Vserver where the AWS KMS is configured.

ekmip.awskms.keyChg

Severity

NOTICE

Description

This message occurs when the key material associated with the key ID of the configured Amazon Web Services (AWS) Key Management Service (KMS) changes. The key material might have been auto-rotated or manually changed at the AWS KMS. Additionally, as a result of updated key material, the top-level internal key-protection key is successfully rewrapped with the current key material of the AWS KMS key ID.

Corrective Action

(None).

Syslog Message

The key material for key "%s" owned by AWS KMS region "%s" and configured for Vserver "%s" has changed.

Parameters

keyId (STRING): Key ID.
region (STRING): AWS KMS region.
vserver (STRING): Name of the Vserver where the AWS KMS is configured.

ekmip.awskms.keyVersionChg

Severity

NOTICE

Description

This message occurs when the key version associated with the key ID of the configured Amazon Web Services (AWS) Key Management Service (KMS) changes. The key version might have been auto-rotated or manually changed at the AWS KMS. Additionally, as a result of updated key version, the top-level internal key-protection key is successfully rewrapped with the current key version of the AWS KMS key ID.

Corrective Action

(None).

Syslog Message

The version of the key "%s" owned by AWS KMS region "%s", configured for Vserver "%s", is changed from "%s" to "%s".

Parameters

keyId (STRING): Key ID.
region (STRING): AWS KMS region.
vserver (STRING): Name of the Vserver where the AWS KMS is configured.
oldKeyVersion (STRING): Prior key version.
newKeyVersion (STRING): New key version.

ekmip.awskms.notAvailable

Severity

ALERT

Description

This message occurs when a check for the availability of the configured Amazon Web Services (AWS) Key Management Service (KMS) fails. The AWS KMS might be down or there might be a network-related problem preventing communication. Without access to the AWS KMS, the node might be unable to restore authentication keys needed to unlock NetApp Storage Encryption (NSE) drives or encryption keys needed to mount encrypted volumes. If the AWS KMS is unavailable, then the next time this node boots, the failure to restore the keys might prevent the node from booting successfully or the encrypted volumes hosted on this node from coming online.

Corrective Action

Verify that the AWS KMS configuration is correct by using the "security key-manager external aws show -vserver <vserver_name>" command, and verify that the AWS KMS cluster state is available. If the cluster state is unavailable, run the "security key-manager external aws restore" command to bring the cluster state to available. If the issue still persists, contact NetApp technical support.

Syslog Message

The AWS KMS with region: %s and key ID: %s configured for Vserver "%s" is not available.

Parameters

region (STRING): AWS KMS region.
keyId (STRING): Key ID.
vserver (STRING): Name of the Vserver where the AWS KMS is configured.

ekmip.awskms.volOffline

Severity

ALERT

Description

This message occurs when the Vserver has been blocked and any encrypted volumes belonging to the Vserver have been taken offline due to errors received when trying to access the key owned by the Amazon Web Services (AWS) Key Management Service (KMS). Reasons for AWS KMS key access errors include a disabled key, a destroyed key, key not found, or a user not having sufficient privileges to access the key. ONTAP polls the AWS KMS to verify key accessibility. If, after 60 minutes, ONTAP has not received a successful response to a poll, volumes are taken offline and remain offline until the key access issues are resolved at the AWS KMS. Subsequently, if ONTAP does receive a successful response, the volumes will be brought back online automatically.

Corrective Action

Resolve the key access issues at the AWS KMS portal. Ensure that the key is active and the user has the required privileges to access the key.

Syslog Message

The Vserver has been blocked and any encrypted volumes belonging to Vserver "%s" have been taken offline due to key access errors associated with key "%s" owned by AWS KMS region "%s".

Parameters

vserver (STRING): Name of the Vserver where the AWS KMS is configured.
keyId (STRING): Key ID.
region (STRING): AWS KMS region.

ekmip.awskms.volOnline

Severity

NOTICE

Description

This message occurs when the volumes configured on the Amazon Web Services (AWS) Key Management Service (KMS) that were unavailable due to key access issues are now back online.

Corrective Action

(None).

Syslog Message

Encrypted volumes belonging to Vserver "%s" associated with key-id "%s" owned by Amazon Web Services (AWS) KMS region "%s" are now back online.

Parameters

vserver (STRING): Name of the Vserver where the AWS KMS is configured.
keyId (STRING): Key ID.
region (STRING): AWS KMS region.

ekmip.gckms events

ekmip.gckms.available

Severity

NOTICE

Description

This message occurs when a configured Google Cloud Key Management Service (GCKMS) that was previously reported as unavailable for key operations is now available.

Corrective Action

(None).

Syslog Message

The GCKMS with project ID: %s, key ring location: %s, key ring: %s and key name: %s configured for Vserver "%s" is now available.

Parameters

projectId (STRING): Project ID.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.
keyName (STRING): Name of the key.
vserver (STRING): Name of the Vserver where the GCKMS is configured.

ekmip.gckms.keyVersionChg

Severity

NOTICE

Description

This message occurs when a change is made to the current key version associated with the key name of the configured Google Cloud KMS (GCKMS). The key version might have been auto-rotated or manually changed at the GCKMS. Additionally, the top-level internal key-protection key has been successfully re-wrapped with the current key version of the GCKMS key name.

Corrective Action

(None).

Syslog Message

The version of the key "%s" owned by Google Cloud KMS Project "%s", with key ring "%s" at "%s", configured for Vserver "%s", has been changed from "%s" to "%s".

Parameters

keyName (STRING): Name of the key.
projectId (STRING): Project ID of the GCKMS.
keyringName (STRING): Name of the key ring.
keyringLocation (STRING): Location of the key ring.
vserver (STRING): Name of the Vserver where the GCKMS is configured.
oldKeyVersion (STRING): Prior key version.
newKeyVersion (STRING): New key version.

ekmip.gckms.notAvailable

Severity

ALERT

Description

This message occurs when a check for the availability of the configured Google Cloud Key Management Service (GCKMS) fails. The GCKMS might be down, there might be a network related problem preventing communication, or there might be an error in the GCKMS key manager configuration. Without access to the GCKMS, one or more nodes might not be able to restore the authentication keys needed to unlock NSE drives or the encryption keys needed to mount encrypted volumes. If the GCKMS is not available to a node, then the next time the node boots, the failure to restore the keys might prevent the node from booting successfully or the encrypted volumes hosted on the node from coming online.

Corrective Action

Verify that the GCKMS configuration is correct by using the "security key-manager external gcp check -vserver <vserver_name>" command. If the issue still persists, contact technical support.

Syslog Message

The GCKMS with project ID: %s, key ring location: %s, key ring: %s and key name: %s configured for Vserver "%s" is not available.

Parameters

projectId (STRING): Project ID.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.
keyName (STRING): Name of the key.
vserver (STRING): Name of the Vserver where the GCKMS is configured.

ekmip.gckms.volOffline

Severity

ALERT

Description

This message occurs when the Vserver has been blocked and any encrypted volumes belonging to the Vserver have been taken offline due to errors received when trying to access the key owned by the Google Cloud KMS (GCKMS). Reasons for GCKMS key access errors include a disabled key, a destroyed key, key not found, or a user not having sufficient privileges to access the key. ONTAP polls the GCKMS every 15 minutes to verify key accessibility. If, after 60 minutes, ONTAP has not received a successful response to a poll, volumes are taken offline and remain offline until the key access issues are resolved at the GCKMS. Subsequently, if ONTAP does receive a successful response, the volumes will be brought back online automatically.

Corrective Action

Resolve the key access issues at the GCKMS portal. Ensure that the key is active and the user has the required privileges to access the key.

Syslog Message

The Vserver has been blocked and any encrypted volumes belonging to Vserver "%s" have been taken offline due to key access errors associated with key "%s" owned by Google Cloud KMS Project "%s" with key ring location "%s" and key ring "%s".

Parameters

vserver (STRING): Name of the Vserver where the GCKMS is configured.
keyName (STRING): Name of the key.
projectId (STRING): ID of the GCKMS project.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.

ekmip.gckms.volOnline

Severity

NOTICE

Description

This message occurs when the volumes configured on the Google Cloud KMS (GCKMS) that were unavailable due to key access issues are now back online.

Corrective Action

(None).

Syslog Message

Encrypted volumes belonging to Vserver "%s" associated with key-id "%s" owned by Google Cloud KMS Project "%s" with key ring location "%s" and key ring "%s" are now back online.

Parameters

vserver (STRING): Name of the Vserver where the GCKMS is configured.
keyName (STRING): Name of the key.
projectId (STRING): ID of the GCKMS project.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.

ekmip.ikpkms events

ekmip.ikpkms.200.missingField

Severity

ALERT

Description

This message occurs when trying to access the key owned by the IBM Key Protect (IKP) Key Management Service (KMS) and an "OK" response (code 200) is received but one field of the response is not populated. Reasons for IKP KMS key access errors include a disabled key, a destroyed key, key not found, or a user not having sufficient privileges to access the key. ONTAP polls the IKP KMS to verify key accessibility. The missing field is integral in determining the status of the key.

Corrective Action

The IKP KMS provided a response with a status of 200 (OK) that did not contain all of the expected fields. Contact technical support to resolve this issue.

Syslog Message

A 200 OK response was received from IKP KMS but the field "%s" was missing for Vserver "%s" with Keymanager Name "%s" associated with key "%s" owned by IKP KMS region "%s" with instance ID "%s".

Parameters

missingField (STRING): Name of the field that is not populated.
vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): The name of the IKP KMS.
keyId (STRING): The Key ID associated with this IKP KMS instance.
region (STRING): The region associated with this IKP KMS instance.
instanceId (STRING): IKP KMS Instance ID.

ekmip.ikpkms.available

Severity

NOTICE

Description

This message occurs when a configured IBM Key Protect (IKP) Key Management Service (KMS) that was unavailable for key operations is now available.

Corrective Action

(None).

Syslog Message

The IKP KMS with region: "%s", instance ID: "%s", and key ID: "%s" configured for Vserver "%s" with Keymanager Name "%s" is now available.

Parameters

region (STRING): The region associated with this IKP KMS instance.
instanceId (STRING): IKP KMS Instance ID.
keyId (STRING): The Key ID associated with this IKP KMS instance.
vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): The name of the IKP KMS.

ekmip.ikpkms.keyVersionChg

Severity

NOTICE

Description

This message occurs when the key version associated with the key ID of the configured IBM Key Protect (IKP) Key Management Service (KMS) changes. The key version might have been auto-rotated or manually changed at the IKP KMS. Additionally, as a result of updated key version, the top-level internal key-protection key has been successfully rewrapped with the current key version of the IKP KMS key ID.

Corrective Action

(None).

Syslog Message

The version of the key "%s" owned by IKP KMS region "%s" and instance ID "%s", configured for Vserver "%s" with Keymanager Name "%s", has been changed from "%s" to "%s".

Parameters

keyId (STRING): The Key ID associated with this IKP KMS instance.
region (STRING): The region associated with this IKP KMS instance.

instanceId (STRING): IKP KMS Instance ID.
vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): The name of the IKP KMS.
oldKeyVersion (STRING): Prior key version.
newKeyVersion (STRING): New key version.

ekmip.ikpkms.notAvailable

Severity

ALERT

Description

This message occurs when a check for the availability of the configured IBM Key Protect (IKP) Key Management Service (KMS) fails. The IKP KMS might be down or there might be a network-related problem preventing communication. Without access to the IKP KMS, the node might be unable to restore authentication keys needed to unlock NetApp Storage Encryption (NSE) drives or encryption keys needed to mount encrypted volumes. If the IKP KMS is unavailable, then the next time this node boots, the failure to restore the keys might prevent the node from booting successfully or the encrypted volumes hosted on this node from coming online.

Corrective Action

Verify that the IKP KMS configuration is correct by using the "security key-manager external ikp show -vserver <vserver_name>" command, and verify that the IKP KMS cluster state is available. If the cluster state is unavailable, run the "security key-manager external ikp restore" command to bring the cluster state to available. If the issue still persists, contact NetApp technical support.

Syslog Message

The IKP KMS with region: "%s", instance ID: "%s", and key ID: "%s" configured for Vserver "%s" with Keymanager Name "%s" is not available.

Parameters

region (STRING): The region associated with this IKP KMS instance.
instanceId (STRING): IKP KMS Instance ID.
keyId (STRING): The Key ID associated with this IKP KMS instance.
vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): The name of the IKP KMS.

ekmip.ikpkms.volOffline

Severity

ALERT

Description

This message occurs when the volumes belonging to the Vserver are taken offline due to errors received when trying to access the key owned by the IBM Key Protect (IKP) Key Management Service (KMS). Reasons for IKP KMS key access errors include a disabled key, a destroyed key, key not found, or a user not having sufficient privileges to access the key. ONTAP polls the IKP KMS to verify key accessibility. If, after 60 minutes, ONTAP has not received a successful response to a poll, volumes are taken offline and remain offline until the key access issues are resolved at the IKP KMS. Subsequently, if ONTAP does receive a successful response, the volumes will be brought back online automatically.

Corrective Action

Resolve the key access issues at the IKP KMS portal. Ensure that the key is active and the user has the required privileges to access the key.

Syslog Message

Encrypted volumes belonging to Vserver "%s" with Keymanager Name "%s" were taken offline due to key access errors associated with key "%s" owned by IKP KMS region "%s" and instance ID "%s".

Parameters

vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): The name of the IKP KMS.
keyId (STRING): The Key ID associated with this IKP KMS instance.
region (STRING): The region associated with this IKP KMS instance.
instanceId (STRING): IKP KMS Instance ID.

ekmip.ikpkms.volOnline

Severity

NOTICE

Description

This message occurs when the volumes configured on the IBM Key Protect (IKP) Key Management Service (KMS) that were unavailable due to key access issues are now back online.

Corrective Action

(None).

Syslog Message

Encrypted volumes belonging to Vserver "%s" with keymanager name "%s" associated with key-id "%s" owned by IBM Key Protect (IKP) KMS region "%s" and instance ID "%s" are now back online.

Parameters

vserver (STRING): Name of the Vserver where the IKP KMS is configured.
kmName (STRING): Name of the IKP KMS.
keyId (STRING): Key ID associated with this IKP KMS instance.
region (STRING): Region associated with this IKP KMS instance.
instanceId (STRING): IKP KMS Instance ID.

ems events

ems.asup events

ems.asup.noteto.transition

Severity

NOTICE

Description

This message occurs when the e-mail addresses for deprecated AutoSupport "noteto" messages are copied to EMS event notification destinations during an upgrade to Data ONTAP® 9.0 or later. This results in duplicate event notifications: one EMS notification and one AutoSupport short note message. Use the "event notification destination {show|modify}" command to view or modify deprecated "noteto" e-mail addresses to use new e-mail destinations. This copy action also creates an event notification that maps the "important-events" filter to all of the newly created destinations. Use the "event notification {show|modify}" command to view or modify the new event notification, as necessary. All events that match the "important-events" filter send notifications to the new destinations, including the AutoSupport triggers with "noteto" enabled.

Corrective Action

To remove event message duplication, remove the AutoSupport "noteto" addresses by entering the "system node autosupport modify -node * -noteto -" command.

Syslog Message

AutoSupport -noteto e-mail addresses have been copied and transitioned to EMS event notification destinations.

Parameters

(None).

ems.engine events

ems.engine.event.dnsLkupFail

Severity

ERROR

Description

This message occurs when the Event Management System (EMS) fails to send an event to a mail destination due to name resolution lookup failures for the mail server specified in EMS configuration options. Possible reasons for failure: DNS servers are not reachable, name services might not be configured correctly or, the configured mail server host name is no longer valid.

Corrective Action

Use the "vserver services name-service dns show" command to check the DNS configuration. If DNS is not configured correctly, use the "vserver services name-service dns modify" command to correct DNS server information, or the "vserver services name-service dns host modify" to correct static host name-to-IP address mapping information. Use the "event config {show|modify}" command to verify or change the configured mail server.

Syslog Message

Failed to send EMS event %s to mail server "%s" because the host name could not be resolved.

Parameters

emsId (STRING): EMS identifier of the event that was not sent to the mail destination.
mailserver (STRING): Mail server specified in EMS configuration options that could not be resolved.

ems.engine.event.undefinedEvent

Severity

NOTICE

Description

This message occurs when the Event Management System (EMS) receives an event that it does not recognize. The event cannot be processed.

Corrective Action

(None).

Syslog Message

(None).

Parameters

requestedEventName (STRING): EMS identifier of the event that was undefined.
requestedEventParams (STRING): List of parameters provided with the requested event.

ems.engine.event.unrecognizedEventVersion

Severity

NOTICE

Description

This message occurs when the Event Management System (EMS) receives an event name that it recognizes, but the event has unexpected parameters. This might occur naturally when the EMS tries to replay an event that occurred before an upgrade (or revert) and the event definition changed between versions.

Corrective Action

(None).

Syslog Message

(None).

Parameters

originalEventXml (STRING): Event name and parameters that were not recognized.

ems.engine.flush

Severity

INFORMATIONAL

Description

This message occurs when the event queues are flushed. Event queues are flushed on system shutdown and before some types of AutoSupport™ data collection.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

ems.snmp events

ems.snmp.parse.error

Severity

ERROR

Description

This message occurs when SNMP parsing of an input packet fails. It could fail for various reasons. The most common failures are due to invalid values for the integer and string fields in the Protocol Data Unit (PDU) and message overflows.

Corrective Action

An agent is incorrectly communicating with the system using SNMP. Find and disable or correct this agent. An Ethernet "sniffer" might be required to identify the client source that is sending the unsupported or incorrect SNMP request.

Syslog Message

%s

Parameters

errorMsg (STRING): Returned error message from the parsing of the input packet.

ems.test events

ems.test.notice

Severity

NOTICE

Description

This message occurs when the system generates a test EMS message of notice severity in response to a user test request.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

enc events

enc.operation events

enc.operation.aborted

Severity

ERROR

Description

This message occurs when either the rekeying of an encrypted flexible volume, or the conversion of the volume from unencrypted to encrypted, is aborted.

Corrective Action

For ASA r2, contact NetApp technical support for assistance to resume the encryption operation. For all other systems, determine the cause of the error by using either the "volume encryption rekey show -vserver <vserver-name> -volume <volume-name>" command or the "volume encryption conversion show -vserver <vserver-name> -volume <volume-name>" command. Correct the error. If the error is related to rekeying, continue the operation by using the "volume encryption rekey resume -vserver <vserver-name> -volume <volume-name>" command. If the error is related to conversion to encryption, continue the operation by using the "volume encryption conversion resume -vserver <vserver-name> -volume <volume-name>" command.

Syslog Message

%s scan is aborted in the volume "%s" (aggr "%s"). Reason: %s.

Parameters

op (STRING): Rekey or conversion operation.
volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.
status (STRING): Status of the scan.

enc.operation.completed

Severity

NOTICE

Description

This message occurs when rekey or conversion to encryption operation is completed in a flexible volume.

Corrective Action

(None).

Syslog Message

%s operation is completed in the volume '%s' (aggr '%s').

Parameters

op (STRING): Rekey or conversion operation.
volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.

enc.operation.disableAid

Severity

NOTICE

Description

This message occurs when the system automatically disables the Aggregate Inline Deduplication (AID) feature for a volume as it is converted from a non-encrypted volume to an encrypted volume because AID is not supported for an encrypted volume.

Corrective Action

(None).

Syslog Message

AID is disabled for volume %s within aggregate %s during conversion to encryption operation.

Parameters

volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.

enc.operation.failure

Severity

ERROR

Description

This message occurs when there is a failure in encryption operation. The operation description explains the nature of operation and reason for failure.

Corrective Action

Ensure that there is enough space in the aggregate, cluster is healthy, volume location database is online, and then retry the volume encryption operation.

Syslog Message

Failure in %s operation on volume '%s' (aggr '%s'). Reason '%s'.

Parameters

op (STRING): Rekey or conversion operation.
volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.
desc (STRING): Describes the reason for the failure of operation with arguments.

enc.operation.started

Severity

NOTICE

Description

This message occurs when rekey or conversion to encryption operation is started in a flexible volume.

Corrective Action

(None).

Syslog Message

%s operation is started in the volume '%s' (aggr '%s').

Parameters

op (STRING): Rekey or conversion operation.
volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.

encryption events

encryption.op events

encryption.op.completed

Severity

NOTICE

Description

This message occurs when a rekey or conversion to encryption operation is completed on a volume.

Corrective Action

(None).

Syslog Message

%s operation is completed on the volume '%s' in Vserver '%s'.

Parameters

op (STRING): Rekey or conversion operation.
volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.

encryption.op.paused.by.user

Severity

NOTICE

Description

This message occurs when a rekey or conversion to encryption operation is paused as a result of an operator request.

Corrective Action

(None).

Syslog Message

%s operation is paused by user on the volume '%s' in Vserver '%s'.

Parameters

op (STRING): Rekey or conversion operation.
volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.

encryption.op.paused.on.err

Severity

ERROR

Description

This message occurs when a rekey or conversion to encryption operation is paused as a result of an error. If it is a rekey operation, volume uses two encryption keys until the rekey operation is completed. New writes and rekeyed blocks use the new key, while the data written before the rekey start still use the old key in the read path. If it is a conversion to encryption operation, new writes and converted blocks use the key, while data written before conversion does not use any key in the read path. Data access continues to be possible, although performance might be degraded.

Corrective Action

For ASA r2, contact NetApp technical support for assistance to resume the encryption operation. For all other systems, determine the cause of the error by using either the "volume encryption rekey show -vserver <vserver-name> -volume <volume-name>" command or the "volume encryption conversion show -vserver <vserver-name> -volume <volume-name>" command. Correct the error. If the error is related to rekeying, continue the operation by using the "volume encryption rekey resume -vserver <vserver-name> -volume <volume-name>" command. If the error is related to conversion to encryption, continue by using the "volume encryption conversion resume -vserver < vserver-name> -volume <volume-name>" command.

Syslog Message

%s operation on volume "%s" in SVM "%s" is paused due to an error. Reason '%s'.

Parameters

op (STRING): Rekey or conversion operation.
volumename (STRING): Name of the volume.
vservername (STRING): Name of the storage virtual machine (SVM).
reason (STRING): Reason for the failure.

encryption.op.queued

Severity

NOTICE

Description

This message occurs when a plaintext volume is queued for encryption.

Corrective Action

(None).

Syslog Message

Volume %s in Vserver %s is queued for %s.

Parameters

volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.
op (STRING): Conversion operation.

encryption.op.started

Severity

NOTICE

Description

This message occurs when a rekey or conversion to encryption operation is started on a volume.

Corrective Action

(None).

Syslog Message

%s operation is started on the volume '%s' in Vserver '%s'.

Parameters

op (STRING): Rekey or conversion operation.
volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.

encryption.queue events

encryption.queue.op.failed

Severity

ERROR

Description

This message occurs when an operation on the volume in the encryption queue failed.

Corrective Action

Check the reason for the failure included in the message. Correct the issue and try the operation again.

Syslog Message

%s operation failed on the queued volume '%s' in Vserver '%s'. Reason: %s.

Parameters

op (STRING): Conversion operation.
volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.
reason (STRING): Reason for the failure.

esh events

esh.async events

esh.async.error

Severity

ERROR

Description

This message occurs when there is an error allocating memory for an asynchronous message during disk shelf discovery processing.

Corrective Action

If the error occurs upon addition of a disk shelf to a running system, disconnect the shelf and reattach it. If the error occurs during boot, reboot the controller.

Syslog Message

Could not allocate memory for an asynchronous message.

Parameters

(None).

esh.auto events

esh.auto.term.error

Severity

ERROR

Description

This message occurs when there is an error in autotermination. Major causes of this include: 1) Last disk shelf in the loop has the termination switch set improperly. 2) Communication is lost to some number of disk shelves in the loop due to an incorrect speed setting for DS14mk2 disk shelves, a bad cable connection, or unavailable power.

Corrective Action

Use the 'fcstat device_map' command to verify that all disk shelves in the loop are still accessible. If the disk shelf reporting the autotermination event is not the last disk shelf in the loop, a problem exists with some number of disk shelves in the loop. Check the speed, power, and cabling of all disk shelves in the loop after the disk shelf reporting the autotermination.

Syslog Message

AUTO TERMINATION ERROR: TERM switch set improperly on ESH %s on channels %s disk shelf ID %d.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.bypass events

esh.bypass.err.disk

Severity

ERROR

Description

This message occurs when there is a disk bypass event. It indicates that a disk is bypassed by the embedded switched hub (ESH) due to one of the following reasons: Manually bypassed; Transmitter fault; LIP F8; Data timeout; Receiver loss of signal; Comma loss of signal; Loop test before insert failure; Redundant port configuration; Exceeded stall threshold; Exceeded word error threshold; Exceeded CRC error threshold; or Exceeded clock delta error threshold.

Corrective Action

Replace the bypassed disk.

Syslog Message

Disk %s%son channels %s disk shelf ID %d %s%s%s.

Parameters

diskID (STRING): Disk that is being bypassed.
disk_data (STRING): disk data includes vendor name, model, firmware revision and the serial number of the disabled disk. If won't bw able to access the disk then this field will be blank.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.
element (STRING): ESH module designator (A is the upper module, B is the lower module).
bay (STRING): Bay in which the disk is installed.
reason (STRING): Reason the disk was bypassed.

esh.bypass.host.port

Severity

ALERT

Description

This message occurs when there is a host port bypass event. It indicates that a host port is bypassed by the embedded switched hub (ESH) due to one of the following reasons: Manually bypassed; Transmitter fault; LIP F8; Data timeout; Receiver loss of signal; Comma loss of signal; Loop test before insert failure; Redundant port configuration; Exceeded stall threshold; Exceeded word error threshold; Exceeded CRC error threshold; or Exceeded clock delta error threshold.

Corrective Action

Replace the disk shelf module to which the concerned host port belongs.

Syslog Message

%s on channels %s disk shelf ID %d %s%s.

Parameters

portID (STRING): Host port that is being bypassed.

channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.
element (STRING): ESH module designator (A is the upper module, B is the lower module).
reason (STRING): Reason the host port was bypassed.

esh.element events

esh.element.fault

Severity

ERROR

Description

This message occurs when the filer cannot communicate with the ESH module.

Corrective Action

Check the cabling to the disk shelf. Verify that the SCSI Enclosure Services (SES) disk drives (0-1) are properly inserted. Check the status LED on the disk shelf, making sure that the fault LEDs are not lit. Clear any fault condition, if possible. Refer to the quick reference card beneath the disk shelf for information about the meanings of the LEDs.

Syslog Message

State of ESH module %s is %s on channels %s disk shelf id %d

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
state (STRING): Current state of ESH Module.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.element.xport.error

Severity

ERROR

Description

This message occurs when there is a transport error.

Corrective Action

Check the cabling to the disk shelf. Verify that the SCSI Enclosure Services (SES) disk drives (0-1) are properly inserted. Check the status LED on the disk shelf, making sure that the fault LEDs are not lit. Clear any fault condition, if possible. Refer to the quick reference card beneath the disk shelf for information about the meanings of the LEDs.

Syslog Message

ESH %s XPORT ERROR on channels %s disk shelf ID %d.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).

channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.init events

esh.init.error

Severity

ERROR

Description

This message occurs when the system cannot allocate memory for a required service. The controller might not have sufficient memory to run the operating system, or installed memory is not functioning properly.

Corrective Action

Contact NetApp technical support.

Syslog Message

Could not allocate memory for ESH globals.

Parameters

(None).

esh.module events

esh.module.multiprob

Severity

ERROR

Description

This message occurs when the ESH might have failed because it is reporting multiple problems.

Corrective Action

Replace the ESH module if the reported multiple problems are not valid.

Syslog Message

channels %s disk shelf ID %d %s%s.

Parameters

channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.
element (STRING): ESH module designator (A is the upper module, B is the lower module).
reason (STRING): Reason the message is being sent.

esh.pctl events

esh.pctl.bpCPLDFailed

Severity

ERROR

Description

This message occurs when a 'power control' command cannot be performed on the specified disk device because the backplane CPLD (Complex Programmable Logic Device) is not operational.

Corrective Action

Power-cycle the disk shelf. If the problem persists, replace the disk shelf.

Syslog Message

Cannot execute a 'power control' command on disk %d [%s:%s:%s] serial number [%s] in disk shelf %d on channel %s. Backplane CPLD (Complex Programmable Logic Device) in the disk shelf is not operational.

Parameters

loopID (INT): Loop ID of the disk for which the 'power control' command failed.
vendor (STRING): Vendor name of the disk.
model (STRING): Model name of the disk.
fwrev (STRING): Firmware revision of the disk.
serno (STRING): Serial number of the disk.
shelfID (INT): Disk shelf ID of the disk shelf that reported an error.
channelName (STRING): Name of the Fibre Channel adapter port.

esh.pctl.connFailed

Severity

ERROR

Description

This message occurs when a 'power control' command cannot be performed on the specified disk device because the CPLD (Complex Programmable Logic Device) serial link on the specified module has a problem.

Corrective Action

Replace the specified I/O module.

Syslog Message

Cannot execute a 'power control' command on disk %d [%s:%s:%s] serial number [%s] in disk shelf %d on channel %s. The CPLD (Complex Programmable Logic Device) serial link on I/O module %s has a problem.

Parameters

loopID (INT): Loop ID of the disk for which the 'power control' command failed.
vendor (STRING): Vendor name of the disk.
model (STRING): Model name of the disk.
fwrev (STRING): Firmware revision of the disk.
serno (STRING): Serial number of the disk.
shelfID (INT): Disk shelf ID of the disk shelf that reported an error.
channelName (STRING): Name of the Fibre Channel adapter port.
module (STRING): Name of the module with a bad CPLD serial link.

esh.pctl.modCPLDFailed

Severity

ERROR

Description

This message occurs when a 'power control' command cannot be performed on the specified disk device because the CPLD (Complex Programmable Logic Device) on an I/O module is not operational.

Corrective Action

Replace the specifed I/O module.

Syslog Message

Cannot execute a 'power control' command on disk %d [%s:%s:%s] serial number [%s] in disk shelf %d on channel %s. The CPLD (Complex Programmable Logic Device) on I/O module %s is not operational.

Parameters

loopID (INT): Loop ID of the disk for which the 'power control' command failed.
vendor (STRING): Vendor name of the disk.
model (STRING): Model name of the disk.
fwrev (STRING): Firmware revision of the disk.
serno (STRING): Serial number of the disk.
shelfID (INT): Disk shelf ID of the disk shelf that reported an error.
channelName (STRING): Name of the Fibre Channel adapter port.
module (STRING): I/O module with the failed CPLD.

esh.speed events

esh.speed.error

Severity

ERROR

Description

This message occurs when there is an error in the link speed of the disk shelves that are attached to the node. Major causes of this include: 1) Last disk shelf in the loop has the termination switch set improperly. 2) Communication is lost to some number of disk shelves in the loop due to an incorrect speed setting for DS14mk2 disk shelves, a bad cable connection, or unavailable power.

Corrective Action

Use the 'fcstat device_map' command to verify that all disk shelves in the loop are still accessible. Check the speed, power, and cabling of all disk shelves in the loop after the disk shelf reporting the autotermination.

Syslog Message

Disk shelf previously connected to the OUT port of ESH %s on channels %s disk shelf ID %d is now inaccessible. (Check cables, speed selection.)

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED

if unconnected.

shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.term events

esh.term.error

Severity

ERROR

Description

This message occurs when there is an error related to loop termination.

Corrective Action

Set the termination switch to the OFF position on the ESH module that is reporting the error.

Syslog Message

FORCED TERMINATION ERROR: TERM switch set improperly on ESH %s on channels %s disk shelf ID %d. The disk shelf connected to the OUT port of this ESH module is inaccessible.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.unable events

esh.unable.add.shelf

Severity

ERROR

Description

This message occurs when a disk shelf cannot be added due to a memory allocation failure during disk shelf discovery processing.

Corrective Action

If the error occurs upon addition of a disk shelf to a running system, disconnect the shelf and reattach it. If the error occurs during boot, reboot the controller.

Syslog Message

Could not perform disk shelf add because of memory allocation failure (%s).

Parameters

name (STRING): Where in the disk shelf add path the error occurred.

esh.unexpected events

esh.unexpected.status

Severity

ALERT

Description

This message occurs when a disk shelf reports an unknown status.

Corrective Action

Ensure that the shelf module firmware and ONTAP® software are compatible versions. Find firmware versions at the NetApp technical support web site.

Syslog Message

Unexpected ESH status of: %d.

Parameters

status (INT): Unexpected/unknown status code that was received.

esh.xfer events

esh.xfer.element.fault

Severity

ERROR

Description

This message occurs when an element is unreachable during an I/O request. It might be due to a transient condition in loop connectivity.

Corrective Action

Check the cabling to the disk shelf. Verify that the SCSI Enclosure Services (SES) disk drives (0-1) are properly inserted. Check the status LED on the disk shelf, making sure that the fault LEDs are not lit. Clear any fault condition, if possible. Refer to the quick reference card beneath the disk shelf for information about the meanings of the LEDs.

Syslog Message

I/O failure on ESH module %s on channels %s disk shelf id %d, status is %s.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.
state (STRING): State of ESH module.

esh.xfer.not.sent

Severity

ERROR

Description

This message occurs when an I/O transfer cannot be sent. It might be due to a transient condition in loop connectivity.

Corrective Action

Check the cabling to the disk shelf. Verify that the SCSI Enclosure Services (SES) disk drives (0-1) are properly inserted. Check the status LED on the disk shelf, making sure that the fault LEDs are not lit. Clear any fault condition, if possible. Refer to the quick reference card beneath the disk shelf for information about the meanings of the LEDs.

Syslog Message

ESH %s I/O failure NOT_SENT channels %s disk shelf ID %d.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.xfer.pctl.error

Severity

ERROR

Description

This message occurs when an error is encountered while sending a disk 'power control' command to SCSI Enclosure Services (SES).

Corrective Action

Check the cabling to the disk shelf. Verify that the SES disk drives in slots 0 and 1 are properly seated. Check the status LEDs on the disk shelf and make sure that the fault LEDs are not lit. Clear any fault condition, if possible. See the quick reference cards beneath the fault disk shelf for information about interpreting the LEDs.

Syslog Message

Error sending disk 'power control' command to SCSI Enclosure Services (SES) in disk shelf %d on channel %s.

Parameters

shelfID (INT): Disk shelf ID of the disk shelf that reported an error.
channelName (STRING): Name of the Fibre Channel adapter port.

esh.xfer.unknown.error

Severity

ERROR

Description

This message occurs when there is an unknown error during an I/O request.

Corrective Action

Contact NetApp technical support.

Syslog Message

ESH %s I/O failure UNKNOWN: %d channels %s disk shelf ID %d.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
status (INT): Error status code.
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

esh.xfer.xport.error

Severity

ERROR

Description

This message occurs when there is a transport error during an I/O request. It might be due to a transient condition in loop connectivity.

Corrective Action

Check the cabling to the disk shelf. Verify that the SCSI Enclosure Services (SES) disk drives (0-1) are properly inserted. Check the status LED on the disk shelf, making sure that the fault LEDs are not lit. Clear any fault condition, if possible. Refer to the quick reference card beneath the disk shelf for information about the meanings of the LEDs.

Syslog Message

ESH %s I/O failure TRANSPORT_ERROR channels %s disk shelf ID %d.

Parameters

element (STRING): ESH module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID (1-7) of the disk shelf reporting the error.

exports events

exports.anon events

exports.anon.noCredForId

Severity

ERROR

Description

This message occurs when we cannot get UNIX credentials for a user id when evaluating the "-anon" portion of an export-policy rule.

Corrective Action

If "-anon" is a UID, ensure that a valid UID exists on the configured name servers. If "-anon" is a username, ensure that a mapping exists between the username and the UID on the configured name servers and the resulting UID is also present.

Syslog Message

Cannot retrieve credentials for UID "%u" present in the "-anon" entry for the export-policy rule for Vserver "%d".

Parameters

anonId (INT): UNIX UID for which we cannot acquire credentials.
vserver (INT): Identifier of the Vserver owning the export-policy.

exports.dns events

exports.dns.config

Severity

ERROR

Description

This message occurs when a name services lookup request finds that DNS is configured as an ns-switch source for hosts, but DNS is not configured for the Vserver. Name services lookups using DNS do not function.

Corrective Action

Check the ns-switch sources for hosts database configured for the Vserver using "vserver services name-service ns-switch show -database hosts" and the DNS configuration for the Vserver using "vserver services name-service dns show". Either remove DNS as an ns-switch source, or configure DNS using the "vserver services name-service dns create" command.

Syslog Message

DNS is configured as a ns-switch source for hosts, but the DNS configuration is not found for Vserver "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.

exports.dom events

exports.dom.notFound

Severity

ERROR

Description

This message occurs when the reverse lookup record mapping an IP address to its hostname cannot be found in the configured name servers. This record must be present to evaluate the export-policy rule that has a domain name in its clientmatch entry.

Corrective Action

The reverse mapping record might have been incorrectly entered, inadvertently removed from the name service, or never entered at all. Check the configuration with the appropriate tools for each name service.

Syslog Message

IP address "%s" does not have a reverse mapping for its corresponding hostname in the configured name servers when evaluating the export-policy rule at index "%u" in policy-id "%llu" for Vserver "%s".

Parameters

ipaddr (STRING): IP address of the client that does not have the reverse lookup record.
ruleindex (INT): Index of the export-policy rule for which the problem is occurring.
policyid (LONGINT): Identifier for the export-policy owning the export-policy rule.
vserver (STRING): Name of the data Vserver for which the problem is occurring.

exports.dom.transient

Severity

ERROR

Description

This message occurs when reverse lookup of the IP address of a client using the configured name servers in a data Vserver is unsuccessful for an export-policy rule that uses the domain name in clientmatch.

Corrective Action

The name service might not be functioning correctly. Check the configuration with the appropriate tools for each name service.

Syslog Message

IP address "%s" could not be resolved to a hostname (error %d) when evaluating export-policy rule at index "%u" in policy-id "%llu" in Vserver "%s".

Parameters

ipaddr (STRING): IP address of the client encountering the reverse lookup error.
retcode (INT): Error code returned by the name service reverse lookup.
ruleindex (INT): Index of the export-policy rule for which the problem is occurring.
policyid (LONGINT): Identifier for the export-policy owning the export-policy rule.
vserver (STRING): Name of the data Vserver for which the problem is occurring.

exports.hostname events

exports.hostname.notFound

Severity

INFORMATIONAL

Description

This message occurs when the forward lookup record mapping a host name to its IP address is not found in the configured name servers in a Vserver. This record must be present to evaluate the export-policy rule that has a host name in its clientmatch entry.

Corrective Action

Ensure that the host has an interface configured for this address family, that the host name is correctly entered, that the host was not inadvertently removed from the name service, or that the host name was never entered at all. If the host should have an address for this address family, then check the configuration by using the appropriate tools for each name service.

Syslog Message

Hostname "%s" does not have a forward mapping for its corresponding %s address in the configured name servers when evaluating the export-policy rule at index "%u" in policy-id "%llu" for Vserver "%s".

Parameters

hostname (STRING): Name of the host that is not found.
addrfamily (STRING): Name of the address family for which the problem occurs.
ruleindex (INT): Index of the export-policy rule for which the problem occurs.
policyid (LONGINT): Identifier for the export-policy that owns the export-policy rule.
vserver (STRING): Name of the Vserver for which the problem occurs.

exports.hostname.transient

Severity

ERROR

Description

This message occurs when a host named in a clientmatch entry of an export-policy rule is not resolved to an IP address using the configured name servers in a data Vserver.

Corrective Action

Ensure that the name service is functioning correctly by checking the configuration by using the appropriate tools for each name service.

Syslog Message

Hostname "%s" could not be resolved to an %s address (error %d) when evaluating export-policy rule at index "%u" in policy-id "%llu" on Vserver "%s".

Parameters

hostname (STRING): Name of the host that is not resolved.
addrfamily (STRING): Name of the address family for which the problem occurs.
retcode (INT): Error code returned by the name service lookup.
ruleindex (INT): Index of the export-policy rule for which the problem occurs.

policyid (LONGINT): Identifier for the export-policy that owns the export-policy rule.
vserver (STRING): Name of the data Vserver for which the problem occurs.

exports.netgroup events

exports.netgroup.dnsNoPtrRec

Severity

ERROR

Description

This message occurs when the reverse lookup record mapping an IP address to its hostname cannot be found in the configured name servers. This record must be present to evaluate the membership of a hostname in the netgroup named in the clientmatch of an export-policy rule.

Corrective Action

The reverse mapping record might have been incorrectly entered, inadvertently removed from the name service, or never entered at all. Check the configuration with the appropriate tools for each name service.

Syslog Message

IP address "%s" does not have a reverse mapping for its corresponding hostname in the configured name servers when evaluating the export-policy rules for netgroup "%s" on Vserver "%s".

Parameters

ipaddr (STRING): IP address of the client that does not have the reverse lookup record.
netgroup (STRING): Name of the netgroup that is being evaluated.
vserver (STRING): Name of the Vserver for which the problem is occurring.

exports.netgroup.notFound

Severity

ERROR

Description

This message occurs when a netgroup named in a clientmatch of an export-policy rule is not found in the configured name servers.

Corrective Action

The netgroup name might have been incorrectly entered, inadvertently removed from the name service, or never entered at all. Check the configuration with the appropriate tools for each name service.

Syslog Message

Netgroup "%s" cannot be found when evaluating export-policy rules on Vserver "%s".

Parameters

netgroup (STRING): Name of the netgroup that is not being found.
vserver (STRING): Name of the Vserver for which the problem is occurring.

exports.netgroup.partial

Severity

ERROR

Description

This message occurs when partial netgroup results are returned by the name services because of errors in the netgroup mapping.

Corrective Action

If the netgroup mapping is greater than 1024 characters for netgroups on Network Information Service (NIS) or 4096 for netgroups in a local file, consider creating a sub netgroup to divide it. If the nesting of the netgroup is too deep, consider reducing the depth by adding the entries directly to the netgroup instead of adding to sub netgroups. If the netgroup has a sub netgroup that is not available as a top level netgroup in the mapping, add an empty entry for the sub netgroup to resolve the error. Ensure the line length and nesting limits are not exceeded.

Syslog Message

Netgroup %s expansion failed with %s (error: %d) when evaluating export-policy rules on Vserver "%s".

Parameters

netgroup (STRING): Name of the netgroup that could not be expanded.
reason (STRING): Specific reason for the netgroup expansion failure.
error (INT): Error code returned during netgroup expansion.
vserver (STRING): Name of the Vserver in which the problem is occurring.

exports.ngbh events

exports.ngbh.allFailed

Severity

ERROR

Description

This message occurs when a netgroup by host request fails because all ns-switch sources for the netgroup database have returned connection errors and files are unusable as a source.

Corrective Action

There might be temporary connectivity issues with the Vserver's configured ns-switch sources for the netgroup database. Check connectivity to the name servers configured for netgroups.

Syslog Message

Connectivity issues encountered in all ns-switch sources when matching Client IP "%s" in Netgroup "%s" for Vserver "%s".

Parameters

client (STRING): IP address of the client for which the lookup failed.
netgroup (STRING): Name of the netgroup being evaluated.
vserver (STRING): Name of the Vserver where the problem is occurring.

exports.nsdb events

exports.nsdb.anonNameToId

Severity

ERROR

Description

This message occurs when a user string cannot be mapped to a user id when evaluating the "-anon" portion of an export-policy rule.

Corrective Action

If the "-anon" value is a name, ensure that a mapping from that name to a UID exists in the configured name services. For both a name and a UID entry in "-anon", ensure that the resulting UID exists in the configured name services.

Syslog Message

Cannot retrieve UID for UNIX username "%s" present in the "-anon" entry for the export-policy rule for Vserver "%d".

Parameters

anon (STRING): Anonymous string that cannot be mapped to a user id.
vserver (INT): Name of the Vserver owning the export-policy.

exports.policy events

exports.policy.empty

Severity

NOTICE

Description

This message occurs when an export policy with no rules is assigned to a volume or a qtree. Such an empty policy makes the volume or qtree inaccessible to NFS and CIFS protocol clients.

Corrective Action

If access is needed for the volume or qtree, then create an export policy rule using the "export-policy rule create" command.

Syslog Message

An export policy "%s" with no rules was assigned to a %s "%s" on the Vserver %s.

Parameters

policyName (STRING): Name of the export policy with no rules.
type (STRING): Type of object (volume or qtree).
typeName (STRING): Name of the volume or qtree.
vserver (STRING): Name of the Vserver with this issue.

exports.policy.last.rule

Severity

ERROR

Description

This message occurs when the last rule from the export policy assigned to a volume or qtree is deleted. An empty policy will make the volume or qtree inaccessible to clients using NFS or CIFS protocol.

Corrective Action

If access is needed for the volume or qtree, then create an export policy rule using the "export-policy rule create" command.

Syslog Message

The last rule from export policy "%s" was deleted on Vserver %s.

Parameters

policyName (STRING): Name of the export policy from which the rule is being deleted.
vserver (STRING): Name of the Vserver where the issue occurs.

exports.policy.rule.limit

Severity

ALERT

Description

This message occurs when the export-policy rule count is beyond the supported value.This can lead to ONTAP service disruption.

Corrective Action

There are two possible actions. Delete an existing export policy rule using the "vserver export-policy rule delete" command, then create the new policy rule again. Use an existing export policy rule that is configured the same way as the desired new rule. Modify the existing rule's "-clientmatch" property to include the client list/netgroups/netmask/domain needing to be added. See the "vserver export-policy rule modify" man page for more details.For more information, contactNetApp technical support.

Syslog Message

The cluster export policy rule limit (%s rules) has crossed the supported value.

Parameters

ruleLimit (STRING): Count of the export policy rule cluster limit.

extcache events

extcache.aggregate events

extCache.aggregate.invalidate

Severity

INFORMATIONAL

Description

This message provides diagnostic information about background work taking place in the WAFL® external cache subsystem.

Corrective Action

(None).

Syslog Message

WAFL external cache: %s

Parameters

detail (STRING): Specific diagnostic information related to the aggregate invalidation event.

extcache.configunsupported events

extCache.configUnsupported

Severity

ERROR

Description

This message occurs when the controller contains an external cache hardware configuration that cannot be supported on the controller.

Corrective Action

Consult the release documentation, check the Interoperability Matrix Tool (IMT) for a supported configuration, or contact Contact NetApp technical support. to understand and correct the hardware configuration.

Syslog Message

WAFL external cache hardware configuration is not supported: %s.

Parameters

description (STRING): String providing information about why the configuration is unsupported.

extcache.control events

extCache.control

Severity

NOTICE

Description

This message occurs when the external cache software cannot signal its administrative thread.

Corrective Action

(None).

Syslog Message

WAFL external cache: %s

Parameters

detail (STRING): Specific details of the event.

extcache.disabled events

extCache.disabled

Severity

NOTICE

Description

This message occurs when the external cache is administratively disabled.

Corrective Action

(None).

Syslog Message

WAFL external cache administratively disabled

Parameters

(None).

extcache.enabled events

extCache.enabled

Severity

NOTICE

Description

This message occurs when the external cache is administratively enabled.

Corrective Action

(None).

Syslog Message

WAFL external cache administratively enabled

Parameters

(None).

extcache.io events

extCache.io.BlockChecksumError

Severity

ERROR

Description

This message occurs when the external cache detects a block checksum verification error while performing a read operation. Checksum errors are infrequent. Some combinations of external cache hardware and software handle these errors automatically without the need for adminstrator action. If further action is required, other messages will be generated. The operation will be retried from persistent storage (RAID).

Corrective Action

(None).

Syslog Message

(None).

Parameters

block_num (INT): Block number that failed checksum verification.

extCache.io.extInfo

Severity

NOTICE

Description

This message accompanies read or write errors and prints out any relevant information about the failure.

Corrective Action

(None).

Syslog Message

%s: fbn: %lld, pvbn: %lld, vvbn: %lld, inum: %d, ecbn: %lld, vol: %s, aggr: %s.

Parameters

description (STRING): String providing information about the message.
fileBlockNum (LONGINT): fbn of the block that errored.
physBlockNum (LONGINT): pvbn of the block that errored.
volBlockNum (LONGINT): vvbn of the block that errored.
fileId (INT): Inode number of the file that owns the block.
ECblockNum (INT): The ecbn of the block.
volName (STRING): Name of the volume.
aggrName (STRING): Name of the aggregate.

extCache.io.readError

Severity

NOTICE

Description

This message occurs when the external cache detects an error on a read. Read errors are infrequent and are usually handled automatically by the external cache without the need for administrator action. The operation will be retried from persistent storage (RAID).

Corrective Action

(None).

Syslog Message

WAFL external cache I/O read error: %s, code %d.

Parameters

description (STRING): String providing information about why the operation failed.
detail (INT): Detailed error code about why the operation failed.

extCache.io.writeError

Severity

NOTICE

Description

This message occurs when the external cache detects an error on a write. Write errors are infrequent and are usually handled automatically by the external cache without the need for adminstrator action.

Corrective Action

(None).

Syslog Message

WAFL external cache I/O write error: %s, code %d.

Parameters

description (STRING): String providing information about why the operation failed.
detail (INT): Detailed error code about why the operation failed.

extcache.offline events

extCache.offline

Severity

ERROR

Description

This message occurs when the external cache is automatically taken offline. This can happen after an I/O error on the external cache and may result in degraded performance until the problem is corrected.

Corrective Action

(Call support).

Syslog Message

External cache has been taken offline on error (rc=%d). Check the EMS log for earlier errors.

Parameters

code (INT): A unique error code for this event.

extcache.qos events

extCache.QoS

Severity

INFORMATIONAL

Description

This message occurs when External Cache Quality of Service (QoS) monitoring is enabled/disabled.

Corrective Action

(None).

Syslog Message

External Cache QoS is: %s.

Parameters

description (STRING): State of External Cache QoS

extcache.restart events

extCache.restart

Severity

NOTICE

Description

This message occurs when the external cache encounters an internal consistency issue and triggers an automatic reset.

Corrective Action

(None).

Syslog Message

WAFL external cache reset: %s

Parameters

detail (STRING): String providing additional information about what triggered the reset.

extcache.rw events

extCache.rw.alloc

Severity

NOTICE

Description

This message occurs when an external cache cannot obtain sufficient system resources. This causes the external cache component to be unable to rewarm after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache could not allocate resources: %s.

Parameters

description (STRING): String identifying the specific resources that were not obtained.

extCache.rw.canceled

Severity

NOTICE

Description

This message occurs when the external cache cannot complete cache rewarming. This causes the external cache component to start with no data cached, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache reconstruct was canceled.

Parameters

(None).

extCache.rw.configChange

Severity

INFORMATIONAL

Description

This message occurs when the external cache warming logic detects a change in cache hardware configuration. This causes the external cache component to start with no data cached for any aggregates, which can cause a temporary performance impact. The problem should resolve itself at the next reboot.

Corrective Action

(None).

Syslog Message

WAFL external cache warming aborted due to hardware configuration change.

Parameters

(None).

extCache.rw.emptyCache

Severity

INFORMATIONAL

Description

This message occurs when the external cache warming process terminates due to a lack of active cache entries.

Corrective Action

(None).

Syslog Message

WAFL external cache warming canceled: cache is not in use.

Parameters

(None).

extCache.rw.entry

Severity

NOTICE

Description

This message occurs when the external cache cannot rebuild cache entries from stored data. This event is caused by an internal error and results in a small portion of the cache remaining empty during rewarming.

Corrective Action

(None).

Syslog Message

WAFL external cache experienced an internal error during reconstruct.

Parameters

(None).

extCache.rw.headerInvalid

Severity

NOTICE

Description

This message occurs when the external cache warming process encounters an invalid file header. This causes the external cache component to start with no data cached for one or all aggregates, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache warming encountered an invalid file header: %s.

Parameters

section (STRING): String identifying the header section in question.

extCache.rw.io.readLimit

Severity

NOTICE

Description

This message occurs when the external cache exceeds the allowable threshold for I/O errors on reads. This causes the external cache component to start with no data cached for any aggregates and might result in temporarily degraded performance.

Corrective Action

(None).

Syslog Message

WAFL external cache warming encountered too many read errors: %s (%d).

Parameters

description (STRING): String providing information about the operation.
number (INT): Number of unsuccessful reads detected.

extCache.rw.io.write

Severity

INFORMATIONAL

Description

This message occurs when the external cache detects an I/O error on a write. This causes the external cache component to be unable to reconstruct portions of the cache and might result in slightly degraded performance.

Corrective Action

(None).

Syslog Message

WAFL external cache I/O write: %s, code %d.

Parameters

description (STRING): String providing information about the operation.
detail (INT): Detailed error code about the operation.

extCache.rw.io.writeLimit

Severity

NOTICE

Description

This message occurs when the external cache exceeds the allowable threshold for I/O errors on writes. This causes the external cache component to start with no cached data for any aggregates and might result in temporarily degraded performance.

Corrective Action

(None).

Syslog Message

WAFL external cache warming encountered too many write errors: %s (%d).

Parameters

description (STRING): String providing information about the operation.
number (INT): Number of unsuccessful writes detected.

extCache.rw.log.bufLoad

Severity

NOTICE

Description

This message occurs when the external cache invalidation log cannot load a WAFL® buffer. This causes the external cache component to be unable to rewarm the aggregate in question after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache invalidation log buf could not be loaded: aggregate %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.

extCache.rw.log.disabled

Severity

NOTICE

Description

This message occurs when external cache invalidation logging is disabled for an aggregate. This causes the external cache component to be unable to rewarm that aggregate after a reboot, which might cause a

temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache invalidation log disabled: aggregate %s: %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
reason (STRING): String indicating the cause of the problem.

extCache.rw.log.freeSpace

Severity

NOTICE

Description

This message occurs when an external cache log file cannot be written due to lack of free space. This causes the external cache component to be unable to rewarm a specific aggregate or the entire cache after a reboot, which might cause a temporary performance impact.

Corrective Action

Make sufficient space available on the aggregate.

Syslog Message

WAFL external cache log out of space on aggregate %s (needs %d bytes).

Parameters

aggregate (STRING): String identifying the aggregate that experienced the failure.
bytes (INT): Number of free bytes needed to successfully open the log file.

extCache.rw.log.maxSize

Severity

NOTICE

Description

This message occurs when an external cache log file reaches its maximum size. This causes the external cache component to be unable to rewarm a specific aggregate or the entire cache after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache log reached maximum size: aggregate %s, log %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
logtype (STRING): String identifying the log file that reached the maximum size.

extCache.rw.log.open

Severity

NOTICE

Description

This message occurs when the external cache cannot open a log file. This causes the external cache component to be unable to rewarm some or all of the cached aggregates after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache log could not be opened: aggregate %s, log %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
logtype (STRING): String identifying the type of log file that could not be opened.

extCache.rw.log.range

Severity

NOTICE

Description

This message occurs when the external cache invalidation log has a block address that is not within an aggregate's address range. This causes the external cache component to be unable to rewarm the aggregate in question after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache invalidation log block out of range: aggregate %s block %lld.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the failure.
block (LONGINT): Block encountered in the invalidation log.

extCache.rw.log.read

Severity

NOTICE

Description

This message occurs when the external cache cannot read from a log file. This causes the external cache component to be unable to rewarm some or all of the cached aggregates during a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache log could not be read: aggregate %s, log %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
logtype (STRING): String identifying the log file that could not be read.

extCache.rw.log.seek

Severity

NOTICE

Description

This message occurs when the external cache cannot manipulate a log file. This causes the external cache component to be unable to rewarm after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache log could not be read: aggregate %s, log %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
logtype (STRING): String identifying the log file that could not be read.

extCache.rw.log.write

Severity

NOTICE

Description

This message occurs when the external cache cannot write to a log file. This causes the external cache component to be unable to rewarm some or all of the cached aggregates after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache log could not be written: aggregate %s, log %s.

Parameters

aggregate (STRING): String identifying the aggregate that experienced the problem.
logtype (STRING): String identifying the log file that could not be written.

extCache.rw.replay.canceled

Severity

NOTICE

Description

This message occurs when the external cache cannot successfully process the invalidation logs for an individual aggregate. This causes the external cache component to start with no data cached for the aggregate, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache replay canceled for aggregate %s: %s.

Parameters

aggregate (STRING): String identifying the aggregate in question.
description (STRING): String providing information about the operation.

extCache.rw.replay.complete

Severity

INFORMATIONAL

Description

This message occurs when the external cache finishes processing the invalidation logs for an individual aggregate.

Corrective Action

(None).

Syslog Message

WAFL external cache warming replay complete for aggregate %s with invalidation log %d%% full.

Parameters

aggregate (STRING): String identifying the aggregate in question.
percent (INT): Percentage of ilog that is full.

extCache.rw.replay.start

Severity

INFORMATIONAL

Description

This message occurs when the external cache begins processing the invalidation logs for an individual aggregate.

Corrective Action

(None).

Syslog Message

WAFL external cache warming replay has begun for aggregate %s.

Parameters

aggregate (STRING): String identifying the aggregate in question.

extCache.rw.replay.timeout

Severity

NOTICE

Description

This message occurs when the external cache timed out waiting for an aggregate to come online and purged old cache entries for it. This causes the external cache component to start with no data cached for the aggregate, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache replay timed out for aggregate %s.

Parameters

aggregate (STRING): String identifying the aggregate in question.

extCache.rw.snap.canceled

Severity

NOTICE

Description

This message occurs when the external cache cannot save a warming snapshot copy. This causes the external cache component to be unable to rewarm after a reboot, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache snapshot copy canceled: %s.

Parameters

description (STRING): String providing information about why the operation was canceled.

extCache.rw.terminated

Severity

NOTICE

Description

This message occurs when the external cache warming process is terminated. This causes the external cache component to start with no data cached for any aggregates, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache warming process terminated.

Parameters

(None).

extCache.rw.timeout

Severity

NOTICE

Description

This message occurs when the external cache warming process terminates after exceeding its allowed time. This causes the external cache component to start with a subset of cached data, which might cause a temporary performance impact.

Corrective Action

(None).

Syslog Message

WAFL external cache warming process exceeded its maximum allowable time and was aborted.

Parameters

(None).

extcache.unallowed events

extCache.unallowed.option

Severity

NOTICE

Description

This message occurs when an external cache bootarg or setflag is set without the required privilege. The default value is used instead.

Corrective Action

(None).

Syslog Message

WAFL external cache %s %s is set without the required privilege; using the default value.

Parameters

    type (STRING): Whether the option set is a bootarg or a setflag.
    option (STRING): Option name.

fabric events

fabric.mgmt events

fabric.mgmt.interface

Severity

NOTICE

Description

This message occurs when the system fails to establish a management interface on the fabric.

Corrective Action

(None).

Syslog Message

Cannot establish a management (Status/Control/Maintenance) interface on fabric %s.

Parameters

fabName (STRING): Fabric name.

fabric.sdm events

fabric.sdm.mem.alloc

Severity

NOTICE

Description

This message occurs when the system fails to allocate a message for storage device monitor (SDM) notification.

Corrective Action

(None).

Syslog Message

Failed to allocate a message for SDM notification to fabric_man.

Parameters

(None).

fabriclink events

fabriclink.retry events

fabriclink.retry.delay

Severity

NOTICE

Description

This message occurs when object replication encounters an error when attempting to contact a remote object store. The attempt will be retried after a short delay.

Corrective Action

(None).

Syslog Message

Link L%u (%s) encountered OSC error %s; will retry in %u seconds.

Parameters

linkid (INT): Link ID that encountered an error.
objstore (STRING): Object store UUID that encountered an error.
error (STRING): Error that was encountered.
delay (INT): Delay (seconds) before the attempt will be retried.

fabricpool events

fabricpool.cloud events

fabricpool.cloud.subscription.added

Severity

NOTICE

Description

This message occurs when a cloud subscription license for FabricPools has been added.

Corrective Action

(None).

Syslog Message

A cloud subscription license for FabricPools has been added for license type %s. Cluster id: %s.

Parameters

license_type (STRING): The type of license that the subscription is added for.
cluster_uuid (STRING): UUID of the cluster.

fabricpool.cloud.subscription.removed

Severity

NOTICE

Description

This message occurs when a cloud subscription license for FabricPools has been removed.

Corrective Action

(None).

Syslog Message

A cloud subscription license for FabricPools has been removed for license type %s. Cluster id: %s.

Parameters

license_type (STRING): The type of license that the subscription was removed for.
cluster_uuid (STRING): UUID of the cluster.

fabricpool.full events

fabricpool.full

Severity

ERROR

Description

This message occurs when the total, cluster-wide FabricPool space usage of object stores from capacity-licensed providers has reached the license limit.

Corrective Action

To find the percentage of the licensed capacity used by each FabricPool, use the "storage aggregate object-store show-space" command. To create more space, delete snapshots from volumes with the tiering policy "snapshot" or "backup" by using the "volume snapshot delete" command. To increase the licensed capacity, install a new license on the cluster.

Syslog Message

Total, cluster-wide FabricPool space usage of object stores from capacity-licensed providers has reached the licensed limit. Cluster ID: %s. Current usage: %s, licensed capacity: %s.

Parameters

cluster_uuid (STRING): UUID of the cluster.
used_capacity (STRING): Total usage of capacity-licensed object stores.
licensed_capacity (STRING): FabricPool licensed capacity.

fabricpool.lost events

fabricpool.lost.contact.scu

Severity

ALERT

Description

This message occurs when ONTAP has lost contact with the Service Control Unit used with cloud subscription licenses.

Corrective Action

Ensure that the Service Control Unit is running and Ontap should have connectivity to it.

Syslog Message

ONTAP has lost contact with the service control unit for the license of type %s. Cluster ID: %s.

Parameters

license_type (STRING): The type of license which has lost contact with the Service Control Unit.
cluster_uuid (STRING): UUID of the cluster.

fabricpool.nearly events

fabricpool.nearly.full

Severity

ERROR

Description

This message occurs when the total, cluster-wide FabricPool space usage of object stores from capacity-licensed providers has nearly reached the license limit.

Corrective Action

To find the percentage of the licensed capacity used by each FabricPool, use the "storage aggregate object-store show-space" command. To create more space, delete snapshots from volumes with the tiering policy "snapshot" or "backup" by using the "volume snapshot delete" command. To increase the licensed capacity, install a new license on the cluster.

Syslog Message

Total, cluster-wide FabricPool space usage of object stores from capacity-licensed providers has nearly reached the licensed limit. Cluster id: %s. Current usage: %s, licensed capacity: %s.

Parameters

cluster_uuid (STRING): UUID of the cluster.
used_capacity (STRING): Total usage of capacity-licensed object stores.
licensed_capacity (STRING): FabricPool licensed capacity.

fabricpool.scu events

fabricpool.scu.contacted

Severity

NOTICE

Description

This message occurs when contact has resumed between ONTAP and the Service Control Unit that is used with cloud subscription licenses.

Corrective Action

(None).

Syslog Message

Contact has resumed between ONTAP and the service control unit for the license of type %s. Cluster ID: %s.

Parameters

license_type (STRING): The type of license which has resumed contact with the Service Control Unit.
cluster_uuid (STRING): UUID of the cluster.

fabricpool.tiering events

fabricpool.tiering.stopped.no.scu

Severity

ALERT

Description

This message occurs when ONTAP has stopped tiering data to the cloud tier because it has lost contact with the Service Control Unit used for one or more cloud subscription licenses.

Corrective Action

Ensure that the Service Control Unit is running and ONTAP should have connectivity to it.

Syslog Message

Ontap has stopped tiering data to the cloud tier because it lost contact with the Service Control Unit for the license of type %s. Cluster ID: %s.

Parameters

license_type (STRING): The type of license which has lost contact with the Service Control Unit.
cluster_uuid (STRING): UUID of the cluster.

fal_nvme events

fal_nvme.init events

fal_nvme.init.failed

Severity

ERROR

Description

This message occurs when the Flash Adaptation Layer (FAL) NVMe subsystem fails to initialize.

Corrective Action

Reboot the node. If the problem persists, contact technical support for assistance.

Syslog Message

FAL NVMe subsystem initialization failed. Reason: %s.

Parameters

reason (STRING): Reason for failure.

fal_nvme.online events

fal_nvme.online.succ

Severity

INFORMATIONAL

Description

This message occurs when the Flash Adaptation Layer (FAL) NVMe subsystem successfully brings online all resources in a caching module.

Corrective Action

(None).

Syslog Message

Successfully brought online %lu GB of the caching module.

Parameters

capacity (LONGINT): Total capacity.

fal_nvme.partition events

fal_nvme.partition.status

Severity

NOTICE

Description

This message occurs when a partition status in the Flash Adaptation Layer (FAL) changes.

Corrective Action

(None).

Syslog Message

Partition %lx-%lu with capacity %lu GiB status: %s.

Parameters

id (LONGINTHEX): Unique identifier for the partition.
ns (LONGINTHEX): Index of the namespace.
capacity (LONGINT): Partition capacity.
state (STRING): Partition state.

fc events

fc.bridge events

fc.bridge.fc.port.alert

Severity

ALERT

Description

This message occurs when an FC port goes offline.

Corrective Action

Check cables, SFPs, and connected devices. If the port is intentionally unused, use the Fibre Channel bridge CLI to disable it.

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s FC Port FC_PORT%d offline. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.fc.port.notice

Severity

NOTICE

Description

This message occurs when an FC port on the identified bridge comes online.

Corrective Action

(None).

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s FC Port FC_PORT%d connected. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.power.alert

Severity

ALERT

Description

This message occurs when an FC-to-SAS bridge power supply fails.

Corrective Action

Check input power and cable. If the problem persists, replace the power supply.

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s Power Supply %s has failed. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePowerSupply (STRING): Power supply reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.power.notice

Severity

NOTICE

Description

This message occurs when an FC-to-SAS bridge power supply returns to normal operation.

Corrective Action

(None).

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s Power supply %s operating normally. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePowerSupply (STRING): Port reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.sas.phy.alert

Severity

ALERT

Description

This message occurs when a SAS port PHY goes offline.

Corrective Action

Check Mini-SAS HD connector, cables, and connected equipment.

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s SAS Port %d Phy %d offline. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
bridgePhy (INT): SAS port Phy reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.sas.phy.notice

Severity

NOTICE

Description

This message occurs when a SAS port PHY on a bridge comes online.

Corrective Action

(None).

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s SAS port %d Phy %d online. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
bridgePhy (INT): Phy reported by the FC—to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.sas.port.alert

Severity

ALERT

Description

This message occurs when an SAS port goes offline.

Corrective Action

Check cables, SFPs, and connected devices. If the port is intentionally unused, use the Fibre Channel bridge CLI to disable it.

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s SAS Port SAS_PORT%d offline. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.sas.port.notice

Severity

NOTICE

Description

This message occurs when an SAS port on the identified bridge comes online.

Corrective Action

(None).

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s SAS Port SAS_PORT%d connected. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgePort (INT): Port reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.temp.alert

Severity

ALERT

Description

This message occurs when an FC-to-SAS bridge reaches a elevated temperature threshold. The bridge will continue to operate, but action should be taken to reduce the temperature.

Corrective Action

The bridge is experiencing an elevated temperature, which indicates a loss of cooling airflow. Check cooling airflow, fan operation, and ambient temperature, and take action to reduce the FC-to-SAS bridge operating temperature. If this is not done and the temperature continues to rise, the FC-to-SAS bridge will shut down when the critical temperature threshold is reached.

Syslog Message

FC-to-SAS %s bridge with name: %s S/N: %s WWN: %s is operating at elevated temperature (%d C). %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgeTemp (INT): Temperature reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.temp.emergency

Severity

EMERGENCY

Description

This message occurs when an FC-to-SAS bridge reaches a critical temperature threshold. The bridge will shut down to protect the hardware.

Corrective Action

Take immediate action to reduce the operating temperature of the FC-to-SAS bridge to avoid hardware damage. Check cooling airflow, fan operation, and ambient temperature. The FC-to-SAS bridge will shut down when this condition is reached, and will not operate until the temperature is reduced.

Syslog Message

FC-to-SAS %s bridge with name: %s S/N: %s WWN:%s has reached critical temperature (%d C) and will soon shut down. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgeTemp (INT): Temperature reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.temp.notice

Severity

NOTICE

Description

This message occurs when an FC-to-SAS bridge returns to a normal operating temperature. No action needs to be taken, because the FC-to-SAS bridge temperature has returned to normal levels.

Corrective Action

(None).

Syslog Message

FC-to-SAS %s bridge %s S/N: %s WWN: %s temperature has returned to normal (%d C). %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.

bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
bridgeTemp (INT): Temperature reported by the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.throughput.alert

Severity

ALERT

Description

This message occurs when an FC-to-SAS bridge experiences degraded throughput.

Corrective Action

Contact NetApp technical support.

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s is experiencing degraded throughput. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fc.bridge.throughput.notice

Severity

NOTICE

Description

This message occurs when an FC-to-SAS bridge recovers from degraded throughput.

Corrective Action

(None).

Syslog Message

Fibre Channel %s Bridge %s S/N: %s WWN: %s throughput is normal. %s

Parameters

bridgeType (STRING): Type of the FC-to-SAS bridge.
bridgeName (STRING): Name of the FC-to-SAS bridge.
bridgeSerialNum (STRING): Serial number of the FC-to-SAS bridge.
bridgeWWN (STRING): World-Wide Name (WWN) of the FC-to-SAS bridge.
addlInfo (STRING): Additional information about the alert being generated, if available.

fcadmin events

fcadmin.bridge events

fcadmin.bridge.prog.disk

Severity

INFORMATIONAL

Description

This event reports the WWN written to a device.

Corrective Action

(None).

Syslog Message

Programming Disk %s LUN=%d on Path=0x%0x with WWN %02x:%02x:%02x:%02x:%02x:%02x:%02x:%02x.

Parameters

diskName (STRING): Name of the disk.
LUNid (INT): Logical Unit Number identifier.
pathAddress (INTHEX): Device address.
WWNbyte0 (INTHEX): 0th byte of World Wide Name.
WWNbyte1 (INTHEX): 1st byte of World Wide Name.
WWNbyte2 (INTHEX): 2nd byte of World Wide Name.
WWNbyte3 (INTHEX): 3rd byte of World Wide Name.
WWNbyte4 (INTHEX): 4th byte of World Wide Name.
WWNbyte5 (INTHEX): 5th byte of World Wide Name.
WWNbyte6 (INTHEX): 6th byte of World Wide Name.
WWNbyte7 (INTHEX): 7th byte of World Wide Name.

fcadmin.bridge.prog.done

Severity

INFORMATIONAL

Description

This message indicates that WWN programming has been successfully completed on a disk.

Corrective Action

(None).

Syslog Message

Disk %s LUN=%d on path=0x%0x successfully programmed. Reboot the drive to see the updated WWN.

Parameters

diskName (STRING): Name of the disk.
LUNid (INT): Logical Unit Number identifier.
pathAddress (INTHEX): Device address.

fcadmin.bridge.prog.fault

Severity

ERROR

Description

This message indicates that the attempt to write the WWN to the disk has failed.

Corrective Action

Retry the command after sometime, error might be transient.

Syslog Message

Error programming disk %s LUN=%d on path=0x%0x. Error status=0x%0x.

Parameters

diskName (STRING): Name of the disk.
LUNid (INT): Logical Unit Number identifier.
pathAddress (INTHEX): Device address.
commandStatus (INTHEX): Returned SCSI error code.

fcadmin.bridge.progWWN

Severity

INFORMATIONAL

Description

This message reports the statistics of the operation to write the World Wide Name (WWN) to the drives.

Corrective Action

(None).

Syslog Message

Total LUNs/drives reported = %d. Total LUNs/drives programmed = %d.

Parameters

reportedLUNs (INT): Total number of LUN instances reported for entire session.
programmedLUNs (INT): Total number of LUN instances programmed for entire session.

fcadmin.bridge.retrieve.fail

Severity

ERROR

Description

This event is generated when the drive is not qualified for DDB (Disk Drive Behavior) update while programming the WWNs.

Corrective Action

(None).

Syslog Message

Error retrieving DDB data for disk=%s on path=0x%0x. Drives on the current path could not be programmed with WWN.

Parameters

diskName (STRING): Name of the disk.
pathAddress (INTHEX): Device address.

fcadmin.bridge.rprt.fault

Severity

ERROR

Description

This message is generated when the Report LUNs response completed with some error.

Corrective Action

Retry the command after sometime, error might be transient.

Syslog Message

Error reported for Report LUN command on disk %s on path 0x%0x, error=0x%0x.

Parameters

diskName (STRING): Name of the disk.
pathAddress (INTHEX): Device address.
commandStatus (INTHEX): Returned SCSI error code.

fcadmin.bridge.rprtcmd.fail

Severity

ERROR

Description

This event is generated when insufficient SCSI command blocks are available for Report LUN command.

Corrective Action

Retry the command after sometime. As command blocks may have become available.

Syslog Message

Memory allocation failed for Report LUN command. No LUN instances are programmed.

Parameters

(None).

fcadmin.bridge.rprtdata.fail

Severity

ERROR

Description

This event is generated when insufficient SCSI command blocks are available for Report LUN command.

Corrective Action

Retry the command after sometime. As command blocks may have become available.

Syslog Message

Memory allocation failed for Report LUN data command, bytes Requested=%d Disk %s on Path=0x%0x.

Parameters

requestedMemory (INT): Requested memory for Report LUN data command.
diskName (STRING): Name of the disk
deviceAddress (INTHEX): Device address.

fcadmin.bridge.WWN.prog.stat

Severity

INFORMATIONAL

Description

This event is generated when the programming of the WWNs into the reported LUNs is complete. An error in programming is indicated when the number of reported LUNs is different from the number programmed.

Corrective Action

(None).

Syslog Message

WWN update completed on disk %s path 0x%0x, total %d LUNS reported, total %d LUNS programmed.

Parameters

diskName (STRING): Name of the disk.
pathAddress (INTHEX): Device address.
LUNsReported (INT): Number of LUNs reported.
LUNsProgrammed (INT): Number of LUNs programmed.

fci events

fci.adapter events

fci.adapter.bootarg.option

Severity

INFORMATIONAL

Description

This message occurs when the the Fibre Channel adapter driver is setting an option based on the setting of a bootarg variable.

Corrective Action

(None).

Syslog Message

Bootarg option "%s" configured for Fibre Channel adapter %s.

Parameters

option (STRING): Option being modified.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter (HBA).

fci.adapter.dump.saved

Severity

NOTICE

Description

This message occurs when an unexpected event or invalid condition is detected by the Fibre Channel(FC) initiator driver and the contents of the FC initiator memory is saved. Dump files are stored in a directory on the system's root volume at /etc/log, with the following directory name format: slifc_[adapterName]*[YYYYMMDD]*[HHMMSS]

Corrective Action

Send the dump file to technical support for analysis.

Syslog Message

A dump for adapter %s was stored in %s.

Parameters

adapterName (STRING): Name of the associated FC host bus adapter.
filename (STRING): Name of the file containing the dump.

fci.adapter.error

Severity

NOTICE

Description

This message occurs when the Fibre Channel adapter driver encounters an error with the adapter. The adapter will be reset to recover.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter driver encountered error "%s" on adapter %s.

Parameters

error (STRING): Type of error that occurred.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.fabric.login.failed

Severity

ERROR

Description

This message occurs when the Fibre Channel adapter cannot log in with the fabric management server.

Corrective Action

The driver will attempt to recover from this error, but if this error keeps occurring, make sure that the switch is configured correctly and then try disconnecting and then reconnecting the adapter to the switch.

Syslog Message

Fibre Channel adapter %s cannot log in with the fabric management server for reason 0x%x.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
status (INTHEX): Status returned from the adapter.

fci.adapter.fabric.ns.login.failed

Severity

ERROR

Description

This message occurs when the Fibre Channel adapter cannot log in with the fabric name server.

Corrective Action

The driver will attempt to recover from this error but if this error keeps occurring make sure that the switch is configured correctly, and then try disconnecting and then reconnecting the adapter to the switch.

Syslog Message

Fibre Channel adapter %s was unable to log in with the fabric name server for reason 0x%x.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
status (INTHEX): Status returned from the adapter.

fci.adapter.fabric.request.failed

Severity

ERROR

Description

This message occurs when the Fibre Channel adapter returns an unexpected status for a fabric query.

Corrective Action

The driver will attempt to recoverf rom this error but if this error keeps occurring make sure that the switch is configured correctly, and then try disconnecting and then reconnecting the adapter to the switch.

Syslog Message

Fibre Channel adapter %s returned unexpected status 0x%x for a fabric query.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
status (INTHEX): Status returned from the adapter.

fci.adapter.failed

Severity

ALERT

Description

This message occurs when the Fibre Channel adapter driver cannot recover the adapter after resetting it multiple times. The adapter will be put offline.

Corrective Action

If the adapter is in use check the cabling, and if it is connected to disk shelves check the seating of the LRC/ESH cards and disks. If the problem keeps occurring try replacing the adapter. If the issue is still not resolved, contact NetApp technical support for assistance in diagnosing a Fibre Channel issue.

Syslog Message

Failed to recover Fibre Channel HBA %s after multiple resets. Taking the adapter offline.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
reason (STRING): Diagnostic information.

fci.adapter.firmware.fault

Severity

NOTICE

Description

This message occurs when a firmware fault is detected on the Fibre Channel adapter and it is being reset to recover.

Corrective Action

(None).

Syslog Message

Detected firmware fault 0x%x on Fibre Channel adapter %s.

Parameters

faultCode (INTHEX): Firmware fault code.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.firmware.pause

Severity

NOTICE

Description

This message occurs when a firmware fault is detected on the Fibre Channel adapter and it is being reset to recover.

Corrective Action

(None).

Syslog Message

Detected firmware fault 0x%x on Fibre Channel adapter %s.

Parameters

faultCode (INTHEX): Firmware fault code.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.link.online

Severity

INFORMATIONAL

Description

This message occurs when a Fibre Channel adapter reports online link status, usually after the adapter is reset successfully.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter %s link online.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.notification

Severity

NOTICE

Description

This message occurs following a management request from the Fibre Channel(FC) driver to the host bus adapter.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter driver notification: "%s" on adapter %s.

Parameters

info (STRING): Description of the outcome.
adapterName (STRING): Name of the associated FC host bus adapter.

fci.adapter.nvram.invalid

Severity

ALERT

Description

This message occurs when ONTAP® software cannot read the NVRAM content of a Fibre Channel adapter. This might cause ONTAP to load an incorrect driver, which could cause the adapter not to work as intended. In addition, the World Wide Node Name (WWNN) and the World Wide Port Name (WWPN) will be incorrect and temporary ones will be assigned. This might cause fabric zoning not to work correctly and might cause problems with anything that depends on consistent WWNNs and WWPNs.

Corrective Action

Reboot the appliance. If the problem still exists, replace the adapter.

Syslog Message

Cannot read NVRAM content of Fibre Channel adapter %s.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.offline

Severity

INFORMATIONAL

Description

This message occurs when the system takes a Fibre Channel adapter offline.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter %s is now offline.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.offlining

Severity

INFORMATIONAL

Description

This message occurs when the system takes a Fibre Channel adapter offline after all outstanding I/O requests have finished.

Corrective Action

(None).

Syslog Message

Taking Fibre Channel adapter %s offline.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.online

Severity

INFORMATIONAL

Description

This message occurs when the system brings a Fibre Channel adapter online.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter %s is now online.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.online.failed

Severity

ERROR

Description

This message occurs when a Fibre Channel adapter fails to come online.

Corrective Action

If the adapter is in use check the cabling, and if it connected to disk shelves check the seating of the LRC/ESH cards.

Syslog Message

Fibre Channel adapter %s failed to come online.

Parameters

    adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.onlining

Severity

    INFORMATIONAL

Description

    This message occurs when the Fibre Channel adapter begins the process of going online.

Corrective Action

    (None).

Syslog Message

    Onlining Fibre Channel adapter %s.

Parameters

    adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.adapter.speed

Severity

    INFORMATIONAL

Description

    This message occurs when speed auto- negotiation for the Fibre Channel port is disabled because the administrator used either the 'ispfc-force-XG-only?' or the 'mptfc-force-XG-only?' boot argument in conjunction with the 'fc-force-XG-ports' boot argument to force a particular speed. For example, setting 'ispfc-force-2G-only?' to 'true' and setting 'fc-force-2G-ports' to '0a,0c' would force ports 0a and 0c to operate at a rate of 2 Gigabits per second.

Corrective Action

    (None).

Syslog Message

    The speed of Fibre Channel adapter port %s was forced to %u Gbps by link speed related boot arguments.

Parameters

    port (STRING): Name of the adapter port.
    speed (INT): Speed the adapter port was assigned.

fci.adapter.topology

Severity

    INFORMATIONAL

Description

    This message occurs when topology auto- negotiation for the Fibre Channel port is disabled because the administrator used either the 'fc-force-ptp-ports' or the 'fc-force-loop-ports' boot argument to force a particular topology.

Corrective Action

(None).

Syslog Message

Fibre Channel adapter port %s was forced to negotiate its topology as %s by topology-related boot arguments.

Parameters

port (STRING): Name of the adapter port.
topo (STRING): Topology the adapter port was assigned.

fci.config events

fci.config.autoReboot

Severity

NOTICE

Description

This message occurs when the system reboots automatically to enable correct adapter operation after changing the state of a reconfigurable adapter.

Corrective Action

No user action is required. The system is rebooting to enable the new adapter configuration.

Syslog Message

Rebooting for Fibre Channel adapter %s to become available.

Parameters

adapters (STRING): Affected adapters.

fci.config.error

Severity

ERROR

Description

This message occurs when there is an error during the Fibre Channel adapter auto-reconfiguration process. The specified adapters will be unavailable until the problem is fixed.

Corrective Action

Contact NetApp technical support.

Syslog Message

Auto-reconfiguration for Fibre channel %s adapter(s) %s has failed.

Parameters

type (STRING): Adapter type.
adapters (STRING): Affected adapter(s).

fci.config.missing

Severity

ERROR

Description

This message occurs when the system cannot find Fibre Channel adapter configuration stored on disk, but the adapter is configured in the boot environment. The boot environment information will be used, but you should update the on-disk configuration to be consistent and to prevent the adapter from getting into an unexpected state if the boot environment settings are lost.

Corrective Action

Use the 'fcadmin config' command to reapply the on-disk configuration to match the setting in the boot environment. If the on-disk configuration is not saved and the boot environment is lost, recovery of this adapter's port personality is not possible. No action is taken automatically to correct the problem.

Syslog Message

Fibre Channel adapter %s is configured in the boot environment but the on-disk configuration information is missing.

Parameters

adapter (STRING): Name of the affected Fibre Channel adapter.

fci.config.needsReboot

Severity

ERROR

Description

This message occurs when the state of a reconfigurable adapter is changed, but the system must be rebooted to place the adapter into service.

Corrective Action

Reboot the system to enable the new adapter configuration.

Syslog Message

Reboot the system for Fibre channel %s adapter %s to become available.

Parameters

type (STRING): Adapter type.
adapters (STRING): Affected adapter(s).

fci.config.offline

Severity

NOTICE

Description

This message occurs when a configurable Fibre Channel adapter cannot be brought online because the configured adapter type needs to be changed.

Corrective Action

Use the 'fcadmin config' utility to change the adapter configuration state and/or reboot the system to allow the PENDING adapter state change to take effect before bringing the adapter online.

Syslog Message

Fibre Channel adapter %s is offline because it is in the %s state.

Parameters

adapter (STRING): Name of the associated Fibre Channel adapter.
state (STRING): Configured adapter state.

fci.config.state

Severity

NOTICE

Description

This message occurs when the state of a configurable Fibre Channel adapter changes.

Corrective Action

(None).

Syslog Message

Fibre Channel %s adapter %s is in the %s state.

Parameters

type (STRING): Current adapter type.
adapter (STRING): Name of the associated Fibre Channel adapter.
state (STRING): Configured adapter state.

fci.device events

fci.device.general.reject

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel port transmits a frame that is rejected. The reject frame contains a reason code that can help diagnose the problem. In some cases, this might lead to a solution.

Corrective Action

(None).

Syslog Message

The frame transmitted by port %s was rejected by port_id 0x%x with reason code 0x%x '%s', explanation code 0x%x '%s'.

Parameters

port (STRING): Name of the adapter port that transmitted the rejected frame.
identifier (INTHEX): Destination port identifier of the rejected frame.

reasonCode (INTHEX): Reason code byte provided for the exchange failure.
reasonString (STRING): Reason code string provided for the exchange failure.
explanationCode (INTHEX): Explanation code byte provided for the exchange failure.
explanationString (STRING): Explanation code string provided for the exchange failure.

fci.device.invalidate.soft.address

Severity

ERROR

Description

This message occurs when a Fibre Channel disk drive takes a soft-assigned address and is being invalidated because soft-assigned addresses are not allowed.

Corrective Action

Disk drives can take a soft-assigned address if the shelf IDs conflict. Make sure that all of the shelves in the loop have unique shelf IDs, and if different shelf types are being mixed, be sure to follow the documentation guidelines for mixing shelves on the same loop. After setting the shelves correctly, power-cycle the shelves so that the drives acquire the correct hard-assigned address.

Syslog Message

Fibre Channel adapter %s is invalidating disk drive %s, which appears to have taken a soft address. Expected hard address %d (0x%x), assigned soft address %d (0x%x).

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
deviceName (STRING): Name of the associated Fibre Channel device.
hardLoopId (INT): Hard loop ID that the device attempted to acquire.
hardALPA (INTHEX): Hard AL_PA that the device attempted to acquire.
softLoopId (INT): Soft loop ID that the device acquired.
softALPA (INTHEX): Soft AL_PA that the device acquired.

fci.device.login.failure

Severity

ERROR

Description

This message occurs when the Fibre Channel port login fails during the PLOGI or PRLI frame exchange. This can happen due to the reception of a Reject or Logout frame coming from the target, or due to a timeout.

Corrective Action

Power-cycling the device might allow it to recover from this problem.

Syslog Message

A login failure has occurred between Fibre Channel adapter %s and %s device %s, with error subcode %s.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
deviceType (STRING): Type of device.
deviceName (STRING): Name of the device.

code (STRING): Error subcode provided by the firmware for the login failure, "N/A" if not provided.

fci.device.login.reject

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel port transmits a PLOGI frame that is rejected. The reject frame contains a reason code that can help diagnose the problem. In some cases, this might lead to a solution.

Corrective Action

None.

Syslog Message

The PLOGI transmitted by port %s was rejected by port_id 0x%x with reason code 0x%x '%s', explanation code 0x%x '%s'.

Parameters

port (STRING): Name of the adapter port that transmitted the PLOGI frame.
identifier (INTHEX): Destination port identifier of the PLOGI frame.
reasonCode (INTHEX): Reason code byte provided for the login failure.
reasonString (STRING): Reason code string provided for the login failure.
explanationCode (INTHEX): Explanation code byte provided for the login failure.
explanationString (STRING): Explanation code string provided for the login failure.

fci.device.loop.recovery

Severity

ERROR

Description

This message occurs when a device reports a break in the Fibre Channel loop, which could be due to a bad or unstable connection.

Corrective Action

Check the cabling and verify that the disk drives and the shelf Fibre Channel modules on the loop are fully inserted. The problem is being caused by a connection in the loop upstream from the device.

Syslog Message

Loop recovery event caused by the device upstream from %s device %s.

Parameters

deviceType (STRING): Type of device.
deviceName (STRING): Name of the device.

fci.discovery events

fci.discovery.timeout

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel adapter driver cannot complete device discovery within the specified time. The driver allows ONTAP® software to continue booting and continues the discovery process in the background.

Corrective Action

(None).

Syslog Message

Device discovery timeout after %d seconds on adapter %s.

Parameters

time (INT): Amount of time, in seconds, spent waiting for device discovery to be completed.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.fabric events

fci.fabric.max.ports

Severity

ERROR

Description

This message occurs when a switch in the fabric attached to the Fibre Channel adapter exceeds the maximum number of ports allowed on a switch. Any devices on this switch will not be seen by the Fibre Channel adapter.

Corrective Action

Any devices on this switch will not be seen by the Fibre Channel adapter. If that is okay then this error can be ignored. If the devices need to be seen by the Fibre Channel adapter then they need to be connected to a switch that does not exceed the maximum number of ports supported per switch.

Syslog Message

Switch with WWN %s on Fibre Channel adapter %s exceeded the maximum number of ports supported: Maximum ports supported is %d and this switch has %d ports.

Parameters

switchWWN (STRING): World-Wide Name (WWN) of the switch that has exceeded the maximum number of supported ports.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
numMaxSwitches (INT): Maximum number of ports supported per switch.
numFabricSwitches (INT): Number of ports on this switch.

fci.fabric.max.switches

Severity

ERROR

Description

This message occurs when the fabric attached to the Fibre Channel adapter exceeds the maximum number of allowed switches. This configuration is not supported and will not work.

Corrective Action

Reduce the number of switches in the fabric.

Syslog Message

Invalid Fabric configuration detected on Fibre Channel adapter %s: Maximum switches supported is %d and this fabric contains %d switches.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
numMaxSwitches (INT): Maximum number of switches supported in a fabric.
numFabricSwitches (INT): Number of switches in the fabric.

fci.flash events

fci.flash.preload.failed

Severity

ERROR

Description

This message occurs when there is a failure updating the Fibre Channel adapter flash preload table. If the preload table cannot be updated, the adapter might not have the best configuration settings for the PCI Express link.

Corrective Action

In most cases the adapter will still function normally. However, if you see PCI Express correctable errors on this adapter, you should replace the adapter.

Syslog Message

Failed to update flash preload table on Fibre Channel adapter %s with error %d.

Parameters

port (STRING): Name of the adapter port.
errorCode (INT): Update error code.

fci.flash.preload.reboot

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel adapter flash preload table has been updated and the controller is rebooting for the new settings to take effect.

Corrective Action

(None).

Syslog Message

Rebooting for updated Fibre Channel flash preload table to take effect.

Parameters

(None).

fci.flash.preload.updated

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel adapter flash preload table is updated. The preload table contains configuration settings for the adapter.

Corrective Action

(None).

Syslog Message

Updated flash preload table on Fibre Channel adapter %s to version %s.

Parameters

port (STRING): Name of the adapter port.
version (STRING): Preload table version.

fci.fwupdate events

fci.fwupdate.AutoBoot

Severity

NOTICE

Description

This message occurs when the Service Level Initiator Fibre Channel (SLIFC) Initiator driver successfully updates the firmware of the host bus adapter (HBA).

Corrective Action

None; the controller is rebooted automatically to enable the new HBA firmware.

Syslog Message

FC Initiator HBA %s firmware updated from version %s to %s. The adapter will be reset automatically to enable the new HBA firmware.

Parameters

hba (STRING): HBA where the firmware version update occurred.
currentversion (STRING): Firmware version the HBA is running.
bundleversion (STRING): Firmware version bundled with ONTAP® software.

fci.fwupdate.NeedBoot

Severity

NOTICE

Description

This message occurs when the Service Level Interface Fibre Channel (SLIFC) Initiator driver successfully updates the firmware version of the host bus adapter (HBA), and requires a reboot of the controller to complete the process.

Corrective Action

(None).

Syslog Message

FC Initiator HBA %s firmware updated from version %s to %s. Reboot the controller to enable the new HBA firmware.

Parameters

hba (STRING): HBA where the firmware update occurred.
currentversion (STRING): Firmware version the HBA is running.
bundleversion (STRING): Firmware version bundled with ONTAP® software.

fci.fwupdate.UpdDone

Severity

NOTICE

Description

This message occurs when the Service Level Initiator Fibre Channel (SLIFC) Initiator driver successfully updates the firmware of the host bus adapter (HBA).

Corrective Action

(None).

Syslog Message

FC Inititator HBA %s firmware updated successfully from version %s to %s.

Parameters

hba (STRING): HBA where the firmware update occurred.
currentversion (STRING): Firmware version the HBA was running.
bundleversion (STRING): Firmware version bundled with ONTAP® software.

fci.fwupdate.UpdErr

Severity

ERROR

Description

This message occurs when the Service Level Initiator Fibre Channel (SLIFC) Initiator driver encounters an error while updating the firmware of the host bus adapter (HBA).

Corrective Action

Contact NetApp technical support for further analysis.

Syslog Message

FC Initator HBA %s failed to update the firmware from version %s to %s with the status of %d.

Parameters

hba (STRING): HBA where the firmware update failure occurred.
currentversion (STRING): Firmware version the HBA is running.
bundleversion (STRING): Firmware version bundled with ONTAP® software.
status (INT): Status code of the firmware update process.

fci.link events

fci.link.break

Severity

ERROR

Description

This message occurs when the Fibre Channel adapter detects a break in the link.

Corrective Action

If the adapter is in use, check the cabling.

Syslog Message

Link break detected on Fibre Channel adapter %s.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.link.break.shelf.fw.update

Severity

INFORMATIONAL

Description

This message occurs when the Fibre Channel adapter detects a break in the link due to a shelf firmware update being performed.

Corrective Action

No corrective action is required. This is expected behavior when firmware is being downloaded to a shelf.

Syslog Message

Link break detected on Fibre Channel adapter %s while downloading shelf firmware.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.link.error

Severity

NOTICE

Description

This message occurs when the Fibre Channel adapter cannot recover the link and the link is going offline.

Corrective Action

(None).

Syslog Message

Could not recover link on Fibre Channel adapter %s after %d seconds. Taking the adapter offline.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
downTime (INT): Amount of time that the link is down.

fci.loop events

fci.loop.stability

Severity

ERROR

Description

This message occurs when the Fibre Channel loop generates too many loop initialization events. This can be a sign of unstable hardware.

Corrective Action

If the adapter is in use check cabling, and if it is connected to disk shelves check the seating of the LRC/ESH cards and disks. If this does not resolve the issue, contact NetApp technical support for assistance in diagnosing a Fibre Channel issue.

Syslog Message

Fibre Channel adapter %s has a loop stability problem. %d loop-initialization events seen in %d seconds.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
numLips (INT): Number of loop-initialization events that occurred.
numSeconds (INT): Time interval that these loop-initialization events were seen.

fci.mserr events

fci.mserr.general

Severity

ERROR

Description

This message occurs when the Fibre Channel fabric cannot successfully complete a request to the Management Server to retrieve configuration information. This query request is issued when the specified adapter is connected to a Fibre Channel fabric. Included in the event is the specific Management Server query along with text describing the reason and explanation codes returned by the fabric.

Corrective Action

If the system happens to issue a Management Server query while the fabric is processing one or more configuration changes, the fabric might not successfully complete the request. After the fabric stabilizes, the Management Server can resume processing requests and the system automatically recovers from the error. This error is expected on McData switches that do not have the OSMS license installed, and devices on those switches cannot be seen by the Fibre Channel adapter. This error might also take place if the configuration has not been cabled properly, particularly if the explanation code translates into something like 'Invalid name for interconnect element or port'. If this error continues to occur after the fabric has stabilized and it is not happening on a McData switch without the OSMS license installed, check cabling, and contact NetApp technical support.

Syslog Message

The Fibre Channel fabric Management Server request (%s) sent from adapter %s for WWN (%s) failed with reason code 0x%x (%s), explanation code 0x%x (%s), and response code 0x%x.

Parameters

msRequest (STRING): Name of the failing Fibre Channel Management Server request.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter (HBA).
queryWWN (STRING): World Wide Name that was used for the query.
reasonCode (INTHEX): Reason code provided by the fabric for failure of the Management Server request.
reason (STRING): Reason text provided by the fabric for failure of the Management Server request.
explanationCode (INTHEX): Explanation code provided by the fabric qualifying the stated reason.
explanation (STRING): Explanation text provided by the fabric qualifying the stated reason.
responseCode (INTHEX): Response code provided by the fabric for failure of the specified Management Server request.

fci.nserr events

fci.nserr.general

Severity

ERROR

Description

This message occurs when the Fibre Channel fabric cannot successfully complete a Name Server query issued to obtain configuration and device information when an adapter is connected to the Fibre Channel fabric. Included in the event are the specific Name Server query and text describing the reason and explanation codes returned by the fabric.

Corrective Action

If the system happens to issue a Name Server query while the fabric is processing one or more configuration changes, the fabric might not successfully complete the request. After the fabric stabilizes, the Name Server can resume processing requests and the system automatically recovers from the error. If this error continues to occur after the fabric has stabilized, contact NetApp technical support.

The Fibre Channel fabric Name Server request (%s) sent from adapter %s failed with reason code 0x%x (%s), explanation code 0x%x (%s) and response code 0x%x.

Parameters

nsRequest (STRING): Name of the failing Fibre Channel Name Server request.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
reasonCode (INTHEX): Reason code provided by the fabric for failure of the Name Server request.
reason (STRING): Reason text provided by the fabric for failure of the Name Server request.
explanationCode (INTHEX): Explanation code provided by the fabric qualifying the stated reason.
explanation (STRING): Explanation text provided by the fabric qualifying the stated reason.
responseCode (INTHEX): Response code provided by the fabric for failure of the specified Name Server request.

fci.nserr.noDevices

Severity

ERROR

Description

This message occurs when the fabric to which the specified adapter is attached reports that no Fibre Channel devices are present.

Corrective Action

Check the fabric to ensure that all expected devices appear in the Name Server. If they appear in the Name Server but have not been reported to the specified adapter, review fabric zoning (if zoning is in use) to ensure that devices are present in the zone containing the adapter. If all expected devices are not present in the Name Server, verify the devices are powered-on, in an operational state, and switch connections/ports are operational.

Syslog Message

The Fibre Channel fabric attached to adapter %s reports the presence of no Fibre Channel devices.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.nserr.peerWWN

Severity

ERROR

Description

This message occurs when the fabric connected to the specified adapter is zoned such that the adapter (or switch port if port zoning is in use) is not included in a fabric zone.

Corrective Action

Check the fabric to ensure that the specified adapter is included in a fabric zone. If port zoning is in use, make sure that the switch port to which the adapter is attached is included in the active zone configuration. If WWN zoning is in use, ensure that the WWN of the specified adapter is included in the active zone configuration. Also make sure that the associated switch port is in an operational state.

Syslog Message

Adapter %s is not in a fabric zone.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.

fci.set events

fci.set.wwn

Severity

INFORMATIONAL

Description

This message occurs when the World-Wide Name (WWN) for this adapter is set to the value in the fci-wwn-"adapter_name" bootarg.

Corrective Action

(None).

Syslog Message

Setting WWN for adapter %s to %s.

Parameters

adapterName (STRING): Name of the associated Fibre Channel host bus adapter.
wwn (STRING): WWN that will be used by the adapter.

fci.sfp events

fci.sfp.invalid

Severity

ERROR

Description

This message occurs when an invalid Small Form-factor Pluggable (SFP) is inserted into the adapter. For example, a 10-GB SFP was inserted into an 8-GB FC adapter.

Corrective Action

Replace the SFP with one that supports the proper speed.

Syslog Message

The SFP in FC adapter %s is not valid. (%s)

Parameters

port (STRING): Name of the adapter port.
reason (STRING): Reason for Invalid SFP.

fci.wrong events

fci.wrong.speed

Severity

NOTICE

Description

This message occurs when the fixed speed level requested by the fc-force-XG-ports bootarg is out of range for the corresponding FC port.

Corrective Action

If another fixed speed is desired, adjust accordingly. Otherwise, the port will autonegotiate.

Syslog Message

Fibre Channel adapter port %s does not support a speed setting of %u Gbps, which does not fall within port range %x.

Parameters

port (STRING): Name of the adapter port.
speed (INT): Speed the adapter port was assigned.
range (INTHEX): Range of speeds the adapter port is capable of using.

fcmon events

fcmon.status events

fcmon.status

Deprecated

Deprecated as of Data ONTAP 9.2 because FCMON process has been removed.

Severity

INFORMATIONAL

Description

This message occurs when FCMON starts up, halts or is requested to print it's current state.

Corrective Action

None.

Syslog Message

FCMON is %s

Parameters

status (STRING): The status of FCMON (initializing|running|sleeping|halted)

fcp events

fcp.service events

fcp.service.shutdown

Severity

INFORMATIONAL

Description

The Fibre Channel Protocol (FCP) service has been shutdown.

Corrective Action

(None).

Syslog Message

FCP service shutdown

Parameters

(None).

fcp.service.startup

Severity

INFORMATIONAL

Description

The Fibre Channel Protocol (FCP) service has been started.

Corrective Action

(None).

Syslog Message

FCP service startup

Parameters

(None).

fcvi events

fcvi.attr events

fcvi.attr.changed

Severity

NOTICE

Description

This message occurs when any of the FCVI attributes changes.

Corrective Action

(None).

Syslog Message

FC-VI adapter: %s changed on port %s. %s

Parameters

attr_type (STRING): Attribute type.
port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.cm events

fcvi.cm.timedout

Severity

NOTICE

Description

This message occurs when connection requests times out.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Connection request timedout on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.cross events

fcvi.cross.connect.detected

Severity

ERROR

Description

This message occurs when the fcvi driver detects a cross connection

Corrective Action

Check the FCVI interconnect cabling at the local and remote nodes. FCVI adapter ports fcvi_device_0s and fcvi_device_1s should not be connected to the same fabric. Contact NetApp technical support if the problem persists.

Syslog Message

FC-VI adapter: Cross Connection detected between local port %s and remote port %s. Local System ID = %llu, Remote System ID = %llu.

Parameters

lname (STRING): Local node's port name.
rname (STRING): Remote node's port name.
lsid (LONGINT): Local node's system id.
rsid (LONGINT): Remote node's system id.

fcvi.disabled events

fcvi.disabled

Severity

ALERT

Description

This message occurs when the HA interconnect card is disabled by the ic-type environment variable.

Corrective Action

Either remove the HA interconnect card from the controller or change the ic-type environment variable.

Syslog Message

FC-VI adapter: Port %s has been disabled because of the ic-type environment variable.

Parameters

port (STRING): FCVI Interconnect NIC.

fcvi.fcrenabled events

fcvi.fcrEnabled

Severity

NOTICE

Description

This message occurs if Fiber Channel Routing (FCR) functionality is enabled on the system.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Fiber Channel Routing (FCR) is enabled.

Parameters

(None).

fcvi.initfailed events

fcvi.initFailed

Severity

ERROR

Description

This message occurs when the driver fails to initialize a FC-VI port.

Corrective Action

Reboot the controller. Contact NetApp technical support if the problem persists.

Syslog Message

FC-VI adapter: %s failed for port %s.

Parameters

operation (STRING): Type of operation
port (STRING): FCVI Interconnect NIC.

fcvi.invalid events

fcvi.invalid.advertisement

Severity

ERROR

Description

This message occurs when FCVI driver receives invalid advertisement.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid advertisement. %s

Parameters

port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.invalid.sfp

Severity

ERROR

Description

This message occurs when the SFP (Small Form-Factor Pluggable) module of the Fibre Channel Virtual Interface (FC-VI) is invalid or incompatible.

Corrective Action

Replace the SFP with a compatible one.

Syslog Message

FC-VI adapter: Invalid SFP - Reason: %s on port %s.

Parameters

reason (STRING): Reason for the incompatibility.
port (STRING): Interconnect NIC.

fcvi.link events

fcvi.link.down

Severity

NOTICE

Description

This message occurs when the physical link of the Fibre Channel Virtual Interface (FC-VI) adapter goes down.

Corrective Action

1. Ensure that the FC-VI link has not been tampered with. 2. Verify that the physical status of the FC-VI adapter is "Up" by using the command "metrocluster interconnect adapter show". 3. If the configuration includes fabric switches, ensure that they are properly cabled and configured.

Syslog Message

(None).

Parameters

alertId (STRING): Alert ID.
alertingResource (STRING): Alerting resource unique name.
alertingResourceName (STRING): Alerting resource name.
possibleEffect (STRING): Possible effect for link transition.
probableCause (STRING): Probable cause of the event.

probableCauseDescription (STRING): Probable cause description of the event.
additionalInfo (STRING): Any additional information for the event.

fcvi.link.up

Severity

NOTICE

Description

This message occurs when the physical link of the Fibre Channel Virtual Interface (FC-VI) adapter comes up.

Corrective Action

(None).

Syslog Message

(None).

Parameters

alertId (STRING): Alert ID.
alertingResource (STRING): Alerting resource unique name.

fcvi.qlgc events

fcvi.qlgc.async.event.overflow

Severity

ERROR

Description

This message occurs when total number of async events are overflowed.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s async event overflowed. Resetting the adapter.

Parameters

port (STRING): FCVI Interconnect NIC.

fcvi.qlgc.connErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter detects a connection error. The FC-VI driver will attempt to retry the connection.

Corrective Action

If this message repeats frequently, there may be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s detects connection error. FC-VI opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
opcode_str (STRING): FCVI opcode.
opcode (INTHEX): FCVI opcode.
qpname (STRING): QP name.
qpnum (INT): QP number.
systemID (LONGINT): Remote node's system ID.
info (STRING): Additional info.

fcvi.qlgc.cpr.reset.cancelled

Severity

ERROR

Description

This message occurs when the CPR reset initiated by the FC-VI port got cancelled.

Corrective Action

Reboot the filer. If issue still persists then replace the FCVI adapter.

Syslog Message

FC-VI adapter: CPR reset initiated by port %s got cancelled. Offlining the port.

Parameters

port (STRING): FCVI Interconnect adapter.

fcvi.qlgc.cpr.reset.failed

Severity

ERROR

Description

This message occurs when the CPR reset initiated by the FC-VI port fails.

Corrective Action

Reboot the filer. If issue still persists then replace the FCVI adapter.

Syslog Message

FC-VI adapter: CPR reset initiated by port %s failed.

Parameters

port (STRING): FCVI Interconnect adapter.

fcvi.qlgc.cpr.reset.unsupported

Severity

ERROR

Description

This message occurs when the CPR reset is not supported by the adapter.

Corrective Action

Reboot the filer. If issue still persists then replace the FCVI adapter.

Syslog Message

FC-VI adapter: CPR reset is not supported by port %s.

Parameters

port (STRING): FCVI Interconnect adapter.

fcvi.qlgc.FrameDiscardErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter firmware discards a received frame because of a receive frame error.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Discarded a received frame because of a receive frame error. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.hard.reset.failed

Severity

ERROR

Description

This message occurs when an FC-VI port's soft reset fails.

Corrective Action

If CPR reset is not supported in the platform, then reboot the filer to recover from this issue. If issue persists then replace the FCVI adapter.

Syslog Message

FC-VI adapter: Hard reset failed at port %s.

Parameters

port (STRING): FCVI Interconnect adapter.

fcvi.qlgc.invalid.data

Severity

ERROR

Description

This message occurs when FCVI driver receives invalid data from firmware.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid data. QP index = %d, completion status = %s(status code = %d), opcode = %s(%d), remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpnum (INT): QP index.
status (STRING): Completion status.
status_code (INT): Completion status code.
opcode_str (STRING): FCVI opcode in string.
opcode (INT): FCVI opcode.
systemID (LONGINT): Remote node's system Id.
info (STRING): Additional info.

fcvi.qlgc.invalid.exch.address

Severity

ERROR

Description

This message occurs when FCVI driver receives a response with invalid exchange address.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid exchange address for %s. QP name = %s, QP index = %d, expected exchange address = 0x%x, received exchange address = 0x%x. %s

Parameters

> **port** (STRING): FCVI Interconnect NIC.
> **resp_type** (STRING): Response type.
> **qpname** (STRING): QP name.
> **qpnum** (INT): QP number.
> **exp_oxid** (INTHEX): Expected exchange address.
> **rcvd_oxid** (INTHEX): Received exchange address.
> **info** (STRING): Additional info.

fcvi.qlgc.invalid.qp

Severity

> ERROR

Description

> This message occurs when FCVI driver receives invalid QP index from firmware.

Corrective Action

> (None).

Syslog Message

> FC-VI adapter: Port %s received invalid QP. Received QP index = %d, completion status = %s(status code = %d), entry type = %s(entry code = %d). %s

Parameters

> **port** (STRING): FCVI Interconnect NIC.
> **qpnum** (INT): QP index.
> **status** (STRING): Completion status.
> **status_code** (INT): Completion status code.
> **entry_type** (STRING): Request/Response entry type.
> **entry_code** (INT): Request/Response entry code.
> **info** (STRING): Additional info.

fcvi.qlgc.invalid.response

Severity

> ERROR

Description

> This message occurs when FCVI driver receives invalid response from firmware.

Corrective Action

> (None).

Syslog Message

> FC-VI adapter: Port %s received invalid response. %s. %s

Parameters

> **port** (STRING): FCVI Interconnect NIC.
> **error_type** (STRING): Type of error.
> **info** (STRING): Additional info.

fcvi.qlgc.ioErr

Severity

ERROR

Description

This message occurs when the FC-VI driver receives some IO error.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: FCVI driver on port %s received IO error. Status = %s(status code = 0x%x), FCVI opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): FCVI opcode in string.
opcode (INTHEX): FCVI opcode.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system ID.

fcvi.qlgc.login.timedout

Severity

NOTICE

Description

This message occurs when port login request times out.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Remote port login timedout on port %s. Remote port id = 0x%x, Remote port handle = %d. %s

Parameters

port (STRING): FCVI Interconnect NIC.
portid (INTHEX): Remote port identifier.
porthandle (INT): Remote port handle.
info (STRING): Additional info.

fcvi.qlgc.ls.reject

Severity

ERROR

Description

This message occurs when the FCVI firmware rejects a link service.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link service = %s(code = %d), rejected on port %s. %s

Parameters

ls (STRING): Link service name.
ls_code (INT): Link service code.
port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.mbox.cmd.pending

Severity

ERROR

Description

This message occurs when a mailbox command is pending for a long time.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Mailbox command '%s(code = 0x%x)' pending on port %s. %s

Parameters

cmd (STRING): Mailbox command.
cmd_code (INTHEX): Mailbox command code.
port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.mbox.cmd.timedout

Severity

ERROR

Description

This message occurs when a mailbox command times out.

Corrective Action

(None).

FC-VI adapter: Mailbox command '%s(code = 0x%x)' timedout on port %s. %s

Parameters

cmd (STRING): Mailbox command.
cmd_code (INTHEX): Mailbox command code.
port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.no.iu.buffer

Severity

ERROR

Description

This message occurs when the FCVI firmware identifies no more incoming IU buffers in the free pool.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s doesn't have free IU buffer. %s

Parameters

port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.no.recv.buffer

Severity

ERROR

Description

This message occurs when the FCVI firmware identifies no more receive buffers available for the incoming receive frames.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s doesn't have free receive buffer. QP name = %s, QP index = %d, Message ID = 0x%x. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
msg_id (INTHEX): Message id of the incoming message.
info (STRING): Additional info.

fcvi.qlgc.oodErr

Severity

ERROR

Description

This message occurs when the FC-VI driver receives out of order completions.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: FCVI driver on port %s receives out of order completions. FCVI opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
opcode_str (STRING): FCVI opcode in string.
opcode (INTHEX): FCVI opcode.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system ID.

fcvi.qlgc.PCIErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter firmware encounters a PCI error because it cannot write a frame to host memory.

Corrective Action

(None).

Syslog Message

FC-VI adapter: PCI error while writing a frame to host memory. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.port.reset

Severity

ERROR

Description

This message occurs when a FCVI port resets.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Resetting the port %s. %s

Parameters

port (STRING): FCVI Interconnect NIC.
reason (STRING): Reason for port reset.

fcvi.qlgc.qp.create.err

Severity

ERROR

Description

This message occurs when QP creation fails.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Failed to create QP on port %s. Requested QP index = %d, completion status = %s(status code = %d). %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpnum (INT): QP index.
status (STRING): Completion status.
status_code (INT): Completion status code.
info (STRING): Additional info.

fcvi.qlgc.qp.destroy.failed

Severity

ERROR

Description

This message occurs when the QP destroy request failed.

Corrective Action

(None).

Syslog Message

FC-VI adapter: QP destroy failed on port %s. QP index = %d. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpnum (INT): QP index.
info (STRING): Additional info.

fcvi.qlgc.qpErr

Severity

ERROR

Description

This message occurs when the FC-VI driver receives a QP error from the Firmware. The FC-VI driver will attempt to retry the connection.

Corrective Action

If this message repeats frequently, there may be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: FCVI driver on port %s received QP Error. QP name = %s, QP index = 0x%x, VI state = %s(state code = 0x%x), sub-error = %s(error code = 0x%x). Remote node's system id = %llu. This error has occurred %d times. %s

Parameters

port (STRING): Interconnect Adapter.
qpname (STRING): QP name.
qpnum (INTHEX): QP number.
state_str (STRING): QP state.
state (INTHEX): QP state code.
suberror (STRING): Sub-error.
code (INTHEX): Sub-error code.
system_id (LONGINT): Remote node's system ID.
errcnt (INT): Number of times QP async error was encountered.
info (STRING): Additional info.

fcvi.qlgc.rcvd.invalid.iu.buffer

Severity

ERROR

Description

This message occurs when the FC-VI adapter receives invalid information unit buffer.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

FC-VI adapter: Port %s received invalid IU buffer. Status = %s(status code = 0x%x), FCVI opcode = %s(0x%x), QP name = %s, QP index = %d, buffer handle = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): FCVI opcode in string.
opcode (INTHEX): FCVI opcode.
qpname (STRING): QP name.
qpnum (INT): QP number.
bufhdl (INT): Buffer handle.
systemID (LONGINT): Remote node's system ID.
info (STRING): Additional info.

fcvi.qlgc.receive.error

Severity

ERROR

Description

This message occurs when the FCVI firmware detects an error in the received frame.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Received bad frame on port %s. Mailbox-1 = %d, Mailbox-2 = %d. %s

Parameters

port (STRING): FCVI Interconnect NIC.
mbox1 (INT): Content of mailbox-1.
mbox2 (INT): Content of mailbox-2.
info (STRING): Additional info.

fcvi.qlgc.received.disconnect

Severity

NOTICE

Description

This message occurs when FCVI driver receives disconnect request from partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Disconnect request received on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.received.reject

Severity

NOTICE

Description

This message occurs when FCVI driver receives connection reject from partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Connect request rejected on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.recvIUErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter receives some error in received information unit.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s received IU error. Status = %s(status code = 0x%x), FCVI opcode = %s(0x%x), QP name = %s, QP index = %d, buffer handle = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): FCVI opcode in string.
opcode (INTHEX): FCVI opcode.

qpname (STRING): QP name.
qpnum (INT): QP number.
bufhdl (INT): Buffer handle.
systemID (LONGINT): Remote node's system ID.

fcvi.qlgc.regDumped

Severity

NOTICE

Description

This message occurs when the FCVI driver saves a diagnostic dump in a file.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Diagnostic dump for port %s saved to file %s.

Parameters

port (STRING): FCVI Interconnect NIC.
filename (STRING): File to which the diagnostic dump was saved.

fcvi.qlgc.RespFrameErr

Severity

ERROR

Description

This message occurs when the adapter firmware sends a response frame with the error bit set.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Firmware sent a response with the error bit set. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.risc.paused

Severity

ERROR

Description

This message occurs when FCVI RISC is paused.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s detected a RISC pause error. %s

Parameters

port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.rmt.link.down

Severity

NOTICE

Description

This message occurs when FCVI driver lost link to partner port.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link to partner node over port %s is down. Partner port id = 0x%x, partner node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
port_id (INTHEX): Partner port id.
system_id (LONGINT): Partner node's system id.
info (STRING): Additional info.

fcvi.qlgc.rmt.link.up

Severity

NOTICE

Description

This message occurs when FCVI driver gets link to partner port.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link to partner node over port %s is up. Partner port id = 0x%x, partner node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
port_id (INTHEX): Partner port id.
system_id (LONGINT): Partner node's system id.
info (STRING): Additional info.

fcvi.qlgc.sendIUError

Severity

ERROR

Description

This message occurs when the FC-VI adapter fails to send an information unit.

Corrective Action

No corrective action is required. The driver internally retries. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s sendIU status = %s(status code = 0x%x), FCVI opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code in hex.
opcode_str (STRING): FCVI opcode in string.
opcode (INTHEX): FCVI opcode in hex.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.sent.disconnect

Severity

NOTICE

Description

This message occurs when FCVI driver sends disconnect request to remote partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Disconnect request sent on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.

system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.soft.reset.failed

Severity

ERROR

Description

This message occurs when an FC-VI port's soft reset fails.

Corrective Action

None.

Syslog Message

FC-VI adapter: Soft reset failed at port %s.

Parameters

port (STRING): FCVI Interconnect adapter.

fcvi.qlgc.system.error

Severity

ERROR

Description

This message occurs when FCVI driver receives system error from FCVI firmware.

Corrective Action

No corrective action is required. The driver internally resets the adapter. However, if you see this message frequently, there might be an issue with the adapter/firmware. Contact NetApp technical support.

Syslog Message

FC-VI adapter: System Error on port %s. %s

Parameters

port (STRING): FCVI Interconnect NIC.
info (STRING): Additional info.

fcvi.qlgc.TimeOutErr

Severity

ERROR

Description

This message occurs when the adapter firmware cannot send a request.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Firmware could not send a request. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): FCVI Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

fcvi.qlgc.transfer.error

Severity

ERROR

Description

This message occurs when the FCVI firmware detects a transfer error.

Corrective Action

(None).

Syslog Message

FC-VI adapter: %s transfer error on port %s. Affected queue number = %d. %s

Parameters

trans_type (STRING): Transfer type.
port (STRING): FCVI Interconnect NIC.
queue_num (INT): Queue number.
info (STRING): Additional info.

fcvi.qlgc_regdumpfailed events

fcvi.qlgc_regDumpFailed

Severity

NOTICE

Description

This message occurs when the HA interconnect driver could not save a diagnostic dump.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Failed to save diagnostic dump for port %s. %s.

Parameters

    port (STRING): FCVI Interconnect NIC.
    reason (STRING): Reason for the failure.

fcvi.unsupported events

fcvi.unsupported.config

Severity

    ERROR

Description

    This message occurs when a network adapter port behavior type is set to use FC-VI on a platform that has not been validated for its use and is therefore unsupported.

Corrective Action

    Change the port behavior type to a value other than "FC-VI". Use the "system hardware unified-connect show" command to view network adaptor port information, including the current behavior type. Use the "system hardware unified-connect modify" command to change the network adapter port behavior type.

Syslog Message

    FC-VI port behavior type not supported on network adapter port %s.

Parameters

    port (STRING): The network adapter port whose behavior type is set to use FC-VI.

fcvi.update events

fcvi.update.link.state

Severity

    NOTICE

Description

    This message occurs when there is a change in physical link state of the Fibre Channel Virtual Interface (FC-VI) adapter.

Corrective Action

    (None).

Syslog Message

    FC-VI adapter: Physical link is %s on port %s.

Parameters

    link_state (STRING): New link state.
    port (STRING): Interconnect NIC.

ffm events

ffrespmon events

fg events

fg.admin events

fg.admin.wait.long

Severity

NOTICE

Description

This message occurs when the data component takes longer than 15 seconds to update its view of the FlexGroup volume after an admin operation.

Corrective Action

(None).

Syslog Message

FlexGroup volume "%s" (MSID "%lu") in Vserver "%s" took %lu seconds to update the "%s" property during the "%s" operation.

Parameters

volumeName (STRING): Name of the FlexGroup volume.
volumeMsid (LONGINT): Master Data Set ID (MSID) of the FlexGroup volume.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.
numSeconds (LONGINT): Number of seconds that the data component took to update.
property (STRING): Volume property being updated.
operation (STRING): Admin operation performed before the data component update.

fg.aggr events

fg.aggr.mixed.types.error

Severity

ERROR

Description

This message occurs when the constituents of a FlexGroup volume are located on different types of aggregates (FabricPool-enabled aggregates and non-FabricPool-enabled aggregates) for more than one week. It is reported once per week if a FlexGroup volume remains in this state. Leaving a FlexGroup volume in a mixed-aggregate state might lead to unbalanced data placement and unexpected performance issues.

Corrective Action

Move all the constituents of the FlexGroup volume to the same aggregate type, i.e., either FabricPool-enabled aggregates or non-FabricPool-enabled aggregates, using the 'volume move start' command with the 'allow-mixed-aggr-types' option set to true.

Syslog Message

The constituents of FlexGroup volume '%s' with UUID '%s' have been located on different types of aggregates (FabricPool-enabled aggregates and non-FabricPool-enabled aggregates) for more than one

week.

Parameters

vol (STRING): Name of the FlexGroup volume.
uuid (STRING): UUID of the FlexGroup volume.

fg.aggr.mixed.types.notice

Severity

NOTICE

Description

This message occurs when the constituents of a FlexGroup volume are located on different types of aggregates (FabricPool-enabled aggregates and non-FabricPool-enabled aggregates). It is reported once per hour. Leaving a FlexGroup volume in a mixed-aggregate state might lead to unbalanced data placement and unexpected performance issues.

Corrective Action

Move all the constituents of the FlexGroup volume to the same aggregate type, i.e., either FabricPool-enabled aggregates or non-FabricPool-enabled aggregates, using the 'volume move start' command with the 'allow-mixed-aggr-types' option set to true.

Syslog Message

The constituents of FlexGroup volume '%s' with UUID '%s' are located on different types of aggregates (FabricPool-enabled aggregates and non-FabricPool-enabled aggregates).

Parameters

vol (STRING): Name of the FlexGroup volume.
uuid (STRING): UUID of the FlexGroup volume.

fg.convert events

fg.convert.critical.fail

Severity

ALERT

Description

This message occurs when the conversion of a FlexVol® volume into a FlexGroup fails. The FlexVol volume is inoperable, and can no longer serve data.

Corrective Action

(Call support).

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu failed. Reason: %s.The FlexVol can no longer serve data. Reason: %s.

Parameters

volumeName (STRING): Name of the volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.

reason (STRING): Reason the conversion failed.
rollbackFailedReason (STRING): Reason the conversion could not roll back after failing to convert.

fg.convert.fail

Severity

ERROR

Description

This message occurs when the conversion of a FlexVol® volume into a FlexGroup fails. The FlexVol volume is still operable.

Corrective Action

Ensure that the FlexVol volume is a valid candidate for the convert operation, and then retry the command. If the error persists, contact NetApp technical support.

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu failed. Reason: %s

Parameters

volumeName (STRING): Name of volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.
reason (STRING): Reason why the conversion failed.

fg.convert.ksmf.timeout

Severity

NOTICE

Description

This message occurs when the operation to convert a FlexVol® volume into a FlexGroup times out when updating the volume's RAID label. The system retries the conversion automatically.

Corrective Action

(None).

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu has timed out while updating the volume's RAID label.

Parameters

volumeName (STRING): Name of the volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.

fg.convert.start

Severity

NOTICE

Description

This message occurs when the conversion of a FlexVol® volume to a FlexGroup begins.

Corrective Action

(None).

Syslog Message

Starting conversion of FlexVol volume %s to new FlexGroup with MSID %llu, UUID %s.

Parameters

volumeName (STRING): Name of volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.
flexgroupUuid (STRING): UUID of the new FlexGroup.

fg.convert.success

Severity

NOTICE

Description

This message occurs when the conversion of a FlexVol® volume into a FlexGroup succeeds.

Corrective Action

(None).

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu successful.

Parameters

volumeName (STRING): Name of volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.

fg.create events

fg.create.workflow.non.auto

Severity

NOTICE

Description

This message occurs when a user creates a FlexGroup volume that has a workflow with a type that is not "auto".

Corrective Action

(None).

Syslog Message

FlexGroup volume "%s" in Vserver "%s" was created with workflow type "%s"

Parameters

volumeName (STRING): Name of the FlexGroup volume.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.
workflow (STRING): The type of workflow for the FlexGroup volume.

fg.inactive events

fg.inactive.dc.only.delete

Severity

NOTICE

Description

This message occurs when the system automatically deletes an inactive FlexGroup constituent that existed only in the data component.

Corrective Action

(None).

Syslog Message

Constituent with DSID "%lu" of FlexGroup volume "%s" (MSID "%lu") in Vserver "%s", which exists only in the data component and is inactive, has been automatically deleted.

Parameters

constituentDsid (LONGINT): Data Set ID (DSID) of the deleted constituent.
volumeName (STRING): Name of the FlexGroup volume owning the deleted constituent.
volumeMsid (LONGINT): Master Data Set ID (MSID) of the FlexGroup volume owning the deleted constituent.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.

fg.inactive.delete

Severity

NOTICE

Description

This message occurs when the system automatically deletes an inactive FlexGroup constituent.

Corrective Action

(None).

Syslog Message

Constituent "%lu" (DSID "%lu") of FlexGroup volume "%s" (MSID "%lu") in Vserver "%s" is inactive and has been automatically deleted.

Parameters

flexgroupIndex (LONGINT): FlexGroup index of the deleted constituent.
constituentDsid (LONGINT): Data Set ID (DSID) of the deleted constituent.
volumeName (STRING): Name of the FlexGroup volume owning the deleted constituent.
volumeMsid (LONGINT): Master Data Set ID (MSID) of the FlexGroup volume owning the deleted constituent.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.

fg.inodes events

fg.inodes.member.allOK

Severity

NOTICE

Description

This message occurs when conditions that led to previous "fg.inodes.member.nearlyFull" and "fg.inodes.member.full" events no longer apply for any constituent in this FlexGroup. All constituents within this FlexGroup have sufficient inodes for normal operation.

Corrective Action

(None).

Syslog Message

All constituents in FlexGroup %s (fg-uuid %s) have sufficient inodes for normal operation.

Parameters

object_name (STRING): Human-readable name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.

fg.inodes.member.full

Severity

ALERT

Description

This message occurs when a constituent with a FlexGroup has run out of inodes. New files cannot be created on this constituent. This might lead to an overall imbalanced distribution of content across the FlexGroup.

Corrective Action

Adding capacity to the FlexGroup by using the "volume modify -files +X" command is the best way to solve this problem. Alternatively, deleting files from the FlexGroup may work, but it is difficult to determine which files have landed on which constituent.

Syslog Message

Constituent %llu in FlexGroup %s (fg-uuid %s) is out of inodes.

Parameters

constituent_dsid (LONGINT): DSID of the constituent that is out of inodes.
object_name (STRING): Human-readable name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.

fg.inodes.member.nearlyFull

Severity

ALERT

Description

This message occurs when a constituent within a FlexGroup is almost out of inodes. This constituent will receive far fewer new create requests than average, which might impact the FlexGroup's overall performance, because those requests are routed to constituents with more inodes.

Corrective Action

Adding capacity to the FlexGroup by using the "volume modify -files +X" command is the best way to solve this problem. Alternatively, deleting files from the FlexGroup might work, although it can be difficult to determine which files have landed on which constituent.

Syslog Message

Constituent %llu in FlexGroup %s (fg-uuid %s) is nearly out of inodes.

Parameters

constituent_dsid (LONGINT): DSID of the constituent that is almost out of inodes.
object_name (STRING): Human-readable name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.

fg.member events

fg.member.below.threshold

Severity

ALERT

Description

This message occurs when a members available space is below the threshold. ONTAP will be reporting zero space for the entire flexgroup.

Corrective Action

Correct the problem based on the reason specified. If the error persists, contact NetApp technical support for further assistance.

Syslog Message

FlexGroup volume "%s" (Size: "%lu", Usage: "%lu"%%) has member volume "%s" (Size: "%lu", Usage: "%lu"%%) that is at or below the free space threshold of "%lu" blocks.

Parameters

flexgroupName (STRING): Name of the FlexGroup volume.
flexgroupSize (LONGINT): Size in blocks of the FlexGroup volume.
flexgroupUsage (LONGINT): Usage percentage of the FlexGroup volume.
memberName (STRING): Name of the FlexGroup member volume.
memberSize (LONGINT): Size in blocks of the FlexGroup member volume.
memberUsage (LONGINT): Usage percentage of the FlexGroup member volume.
thresholdSize (LONGINT): Size of threshold that has been reached.

fg.member.elastic.sizing

Severity

NOTICE

Description

This message occurs when a constituent volume in a FlexGroup volume undergoes elastic sizing either to restore balance among constituent volumes or to resize them to accommodate space needs.

Corrective Action

(None).

Syslog Message

Constituent volume "%u" in FlexGroup volume "%s" was resized from %lu blocks to %lu blocks. This constituent volume (%s) %s by resizing the constituent volume "%s" (dsid "%u"). This constituent volume is %llu bytes in size with %llu bytes used (%u percent full). The FlexGroup volume is %llu bytes in size with %llu bytes used (%u percent full).

Parameters

constituent_dsid (INT): DSID of the constituent volume undergoing elastic sizing.
object_name (STRING): Name of the FlexGroup volume.
current_size (LONGINT): Original block size of the constituent volume.
new_size (LONGINT): New block size of the constituent volume.
constituent_name (STRING): Name of the constituent volume.
operation (STRING): Indicates whether the constituent volume is being grown or shrunk.
partner_name (STRING): Name of the constituent volume's partner.
partner_dsid (INT): DSID of the constituent volume's partner.
size (LONGINT): Size in bytes of the constituent volume.
used (LONGINT): Size in bytes of the used space of the constituent volume.
percent_full (INT): Percentage of filled space in the constituent volume.
flexgroup_size (LONGINT): Size in bytes of the FlexGroup volume.
flexgroup_used (LONGINT): Size in bytes of the used space in the FlexGroup volume.
flexgroup_percent_full (INT): Percentage of filled space in the FlexGroup volume.
event_time (LONGINT): When the event occurred, shown in system time.

fg.member.invalidated

Severity

NOTICE

Description

This message occurs when a FlexGroup volume has been invalidated by an operation that was performed directly on a constituent volume instead of on the overall FlexGroup. For example, a constituent volume was directly deleted or had an operation performed on it such as snapshot restore.

Corrective Action

(None).

Syslog Message

FlexGroup volume MSID "%lu" in Vserver "%s", has been been invalidated by an operation performed on constituent "%s" (DSID "%lu").

Parameters

volumeMsid (LONGINT): Master Data Set ID (MSID) of the FlexGroup volume owning the invalidated constituent.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.
constituentName (STRING): Name of the invalidated constituent.

constituentDsid (LONGINT): Data Set ID (DSID) of the invalidated constituent.

fg.modify events

fg.modify.workflow

Severity

NOTICE

Description

This message occurs when a user modifies the workflow type of a FlexGroup volume.

Corrective Action

(None).

Syslog Message

The workflow type for FlexGroup volume "%s" in Vserver "%s" was modified from "%s" to "%s".

Parameters

volumeName (STRING): Name of the FlexGroup volume.
vserverName (STRING): Name of the Vserver on which the FlexGroup volume resides.
oldWorkflow (STRING): The old workflow type of the FlexGroup volume.
newWorkflow (STRING): The new workflow type for the FlexGroup volume.

fg.move events

fg.move.unmirrored.aggr

Severity

NOTICE

Description

This message occurs when a user moves a FlexGroup constituent to an unmirrored aggregate on nodes in a MetroCluster(tm) configuration. However, unmirrored aggregates, as a rule, do not have synchronous disaster protection.

Corrective Action

(None).

Syslog Message

FlexGroup constituent %s was moved to unmirrored aggregate %s on Vserver %s.

Parameters

volumeName (STRING): Name of the FlexGroup constituent moved to the unmirrored aggregate.
aggregateName (STRING): Name of the unmirrored aggregate.
vserverName (STRING): Name of the Vserver on which the FlexGroup constituent resides.

fg.multidelete events

fg.multidelete.inval.snapid

Severity

NOTICE

Description

This message occurs when a Snapshot copy in an invalid state is deleted from a FlexGroup volume. For example, if a Snapshot copy creation fails on some constituent volumes of a FlexGroup volume, but succeeds on others, it is deemed invalid and deleted by ONTAP.

Corrective Action

(None).

Syslog Message

Invalid Snapshot copy ID "%u" on FlexGroup volume "%s" is being deleted (UUID: %s, MSID: %llx).

Parameters

snapid (INT): ID of the invalid Snapshot copy to be deleted.
flexgroup_name (STRING): Name of the FlexGroup volume.
flexgroup_uuid (STRING): UUID of the FlexGroup volume.
flexgroup_msid (LONGINTHEX): Master Data Set ID (MSID) of the FlexGroup volume.

fg.plex events

fg.plex.del.unmirror.aggr

Severity

NOTICE

Description

This message occurs when a user unmirrors an aggregate (plex delete) that contains a FlexGroup constituent on nodes in a MetroCluster(tm) configuration. However, unmirrored aggregates, as a rule, do not have synchronous disaster protection.

Corrective Action

(None).

Syslog Message

Aggregate %s, which contains a FlexGroup constituent, was unmirrored.

Parameters

aggregateName (STRING): Name of the aggregate that is unmirrored.

fg.provision events

fg.provision.unmirrored.aggr

Severity

NOTICE

Description

This message occurs when a user provisions a FlexGroup on unmirrored aggregates on nodes in a MetroCluster(tm) configuration. However, unmirrored aggregates, as a rule, do not have synchronous disaster protection.

Corrective Action

(None).

Syslog Message

FlexGroup %s was provisioned on unmirrored aggregates on Vserver %s.

Parameters

volumeName (STRING): Name of the FlexGroup created on the unmirrored aggregates.
vserverName (STRING): Name of the Vserver on which the FlexGroup resides.

fg.quota events

fg.quota.cannot.enforce

Severity

NOTICE

Description

This message occurs when a FlexGroup cannot enforce its quota as expected.

Corrective Action

(None).

Syslog Message

FlexGroup %s (fg-uuid %s) cannot enforce quota due to %s.

Parameters

object_name (STRING): Name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.
reason (STRING): Reason for lack of quota enforcement.

fg.quota.enforcement.on

Severity

NOTICE

Description

This message occurs when a file operation discovers that the quota enforcement state of a FlexGroup has changed to "on".

Corrective Action

(None).

Syslog Message

FlexGroup %s (fg-uuid %s) quota enforcement state is on.

Parameters

object_name (STRING): Name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.

fg.quota.on.failed

Severity

ERROR

Description

This message occurs when enabling quotas (quota on an operation) on a FlexGroup constituent fails.

Corrective Action

Correct the problem based on the reason specified. If the error persists, contact technical support.

Syslog Message

Failed to execute the quota on operation on FlexGroup constituent %s in Vserver %s. Reason: %s.

Parameters

volumeName (STRING): Name of the constituent.
vserverName (STRING): Name of the Vserver.
reason (STRING): Reason for the failure.

fg.quota.usermapping.result

Severity

NOTICE

Description

This message occurs when the quota mapper decides whether to map the Windows quota record and the UNIX quota record of a user into a single multiuser record.

Corrective Action

(None).

Syslog Message

%s (uuid %s) tid %d: %s.

Parameters

constituent_name (STRING): Name of the FlexGroup constituent.
object_uuid (STRING): UUID of the FlexGroup constituent.
qtree (LONGINT): Qtree identifier (tid).
result (STRING): User mapping result.

fg.recover events

fg.recover.fail

Severity

ERROR

Description

This message occurs when the recovery of a FlexGroup volume back into a FlexVol® fails. The FlexGroup volume is still operable.

Corrective Action

Ensure that the FlexGroup volume is a valid candidate for the recovery operation, and then retry the command. If the error persists, contact NetApp technical support.

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu failed. Reason: %s

Parameters

volumeName (STRING): Name of volume being recovered back into a FlexVol.
flexgroupMsid (LONGINTHEX): MSID of the recovered FlexVol.
reason (STRING): Reason why the recovery failed.

fg.recover.start

Severity

NOTICE

Description

This message occurs when the recovery of a FlexGroup volume back into a FlexVol® begins.

Corrective Action

(None).

Syslog Message

Starting recovery of FlexGroup volume %s back into a FlexVol® with MSID %llu.

Parameters

volumeName (STRING): Name of volume being recovered back into a FlexVol.
volMsid (LONGINTHEX): MSID of the recovered FlexVol.

fg.recover.success

Severity

NOTICE

Description

This message occurs when the recovery of a FlexGroup volume back into a FlexVol® succeeds.

Corrective Action

(None).

Syslog Message

Conversion of FlexVol volume %s to FlexGroup with MSID %llu successful.

Parameters

volumeName (STRING): Name of volume being recovered back into a FlexVol.
volMsid (LONGINTHEX): MSID of the recovered FlexVol.

fg.space events

fg.space.member.allOK

Severity

NOTICE

Description

This message occurs when conditions that led to previous "fg.space.member.nearlyFull" and "fg.space.member.full" events no longer apply. All constituents within this FlexGroup have sufficient space for normal operation.

Corrective Action

(None).

Syslog Message

The FlexGroup %s (fg-uuid %s) no longer has any full constituents.

Parameters

object_name (STRING): Human-readable name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.

fg.space.member.full

Severity

ALERT

Description

This message occurs when a constituent volume within a FlexGroup volume is now full. Although new files can still be created within the FlexGroup volume and some files can still be expanded, none of the files that are stored on this constituent volume can be modified. The user might see random out-of-space errors as a consequence when trying to perform write operations on this FlexGroup volume.

Corrective Action

Adding capacity to the FlexGroup volume by using the "volume modify -size +X" command is the best way to solve this problem. Alternatively, deleting files from the FlexGroup volume might work, but it is difficult to determine which files have landed on which constituent volume.

Syslog Message

Constituent volume "%llu" in FlexGroup volume "%s" (fg-uuid "%s") is out of space. This constituent volume ("%s") is %llu bytes in size with %llu bytes used (%u percent full). The FlexGroup volume is %llu bytes in size with %llu bytes used (%u percent full).

Parameters

constituent_dsid (LONGINT): DSID of the constituent volume that is out of space.
object_name (STRING): Human-readable name of the FlexGroup volume.
object_uuid (STRING): UUID of the FlexGroup volume.
constituent_name (STRING): Name of the constituent volume.
size (LONGINT): Size in bytes of the constituent volume.
used (LONGINT): Size in bytes of the used space of the constituent volume.
percent_full (INT): Percentage of filled space in the constituent volume.

flexgroup_size (LONGINT): Size in bytes of the FlexGroup volume.
flexgroup_used (LONGINT): Size used in bytes of the FlexGroup volume.
flexgroup_percent_full (INT): Percentage of filled space in the FlexGroup volume.
event_time (LONGINT): When the event occurred, shown in system time.

fg.space.member.nearlyFull

Severity

ALERT

Description

This message occurs when a constituent volume within a FlexGroup volume is nearly out of space. Although files can be created and expanded, if the constituent volume runs out of space, the user's ability to append to and modify those files that reside on this constituent volume will be impeded.

Corrective Action

Adding capacity to the FlexGroup volume by using the "volume modify -size +X" command is the best way to solve this problem. Alternatively, deleting files from the FlexGroup volume might work, but it is difficult to determine which files have landed on which constituent volume.

Syslog Message

Constituent volume "%llu" in FlexGroup volume "%s" (fg-uuid "%s") is nearly out of space. This constituent volume ("%s") is %llu bytes in size with %llu bytes used (%u percent full). The FlexGroup volume is %llu bytes in size with %llu bytes used (%u percent full).

Parameters

constituent_dsid (LONGINT): DSID of the constituent volume that is nearly out of space.
object_name (STRING): Human-readable name of the FlexGroup volume.
object_uuid (STRING): UUID of the FlexGroup volume.
constituent_name (STRING): Name of the constituent volume.
size (LONGINT): Size in bytes of the constituent volume.
used (LONGINT): Size in bytes of the used space of the constituent volume.
percent_full (INT): Percentage of filled space in the constituent volume.
flexgroup_size (LONGINT): Size in bytes of the FlexGroup volume.
flexgroup_used (LONGINT): Size used in bytes of the FlexGroup volume.
flexgroup_percent_full (INT): Percentage of filled space in the FlexGroup volume.
event_time (LONGINT): When the event occurred, shown in system time.

fg.space.resize.failed

Severity

NOTICE

Description

This message occurs when a resize of a FlexGroup member was blocked. This can occur due to issues with the FlexGroup configuration, current state, or internal issues such as memory allocation failures. This message gives information that can help correct the issue.

Corrective Action

Monitor the constituent. If its space usage continues to grow and the filer is unable to add space, then writes to the constituent may start to fail. Evaluate the error reason identified in the event and determine if it can be corrected. If it's not clear how to correct the error, contact Support.

Syslog Message

Constituent volume "%s" in FlexGroup volume "%s" (fg-uuid "%s") has had a resize failure of type "%s" with error: "%s". This constituent volume is %llu bytes in size with %llu bytes used (%u percent full). The FlexGroup volume is %llu bytes in size with %llu bytes used (%u percent full).

Parameters

constituent_name (STRING): Name of the constituent volume.
object_name (STRING): Human-readable name of the FlexGroup volume.
object_uuid (STRING): UUID of the FlexGroup volume.
resize_type (STRING): The type of resize that was attempted.
resize_error (STRING): The resize error that occurred.
size (LONGINT): Size in bytes of the constituent volume.
used (LONGINT): Size in bytes of the used space of the constituent volume.
percent_full (INT): Percentage of filled space in the constituent volume.
flexgroup_size (LONGINT): Size in bytes of the FlexGroup volume.
flexgroup_used (LONGINT): Size used in bytes of the FlexGroup volume.
flexgroup_percent_full (INT): Percentage of filled space in the FlexGroup volume.
event_time (LONGINT): When the event occurred, shown in system time.

fg.statechange events

fg.stateChange

Severity

NOTICE

Description

This message occurs when the FlexGroup has transitioned from one state to another. This message might not occur immediately after the state transition occurred.

Corrective Action

(None).

Syslog Message

FlexGroup %s (fg-uuid %s) has changed state from %s to %s.

Parameters

object_name (STRING): Human-readable name of the FlexGroup.
object_uuid (STRING): UUID of the FlexGroup.
old_state (STRING): State that the FlexGroup was in before the EMS event.
new_state (STRING): State that the FlexGroup was in at the time of the EMS event.

fg.svmdr events

fg.svmdr.qos.wklds.insuff

Severity

NOTICE

Description

This message occurs during FlexGroup volume replication in an SVM DR setup when the available QoS workloads are insufficient on the secondary cluster.

Corrective Action

Contact NetApp technical support.

Syslog Message

Available QoS workloads are insufficient to support replicated FlexGroup "%s" in Vserver "%s".

Parameters

volume (STRING): FlexGroup name.
vserver (STRING): Vserver name.

fg.unconfig events

fg.unconfig.consts.exist

Severity

ERROR

Description

This message occurs when a FlexGroup detects constituents that are not properly configured and have not been removed after a sufficient timeout. This usually means that a failed attempt to expand the volume also failed to delete constituents.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

FlexGroup %s has had constituents that are not properly configured for longer than %d seconds.

Parameters

object_name (STRING): Name of the FlexGroup.
seconds (INT): Timeout period in seconds.

fg.unconvert events

fg.unconvert.critical.fail

Severity

ALERT

Description

This message occurs when a member of a FlexGroup fails to be converted into an independent FlexVol® volume. The original state of this member could not be restored, so the FlexGroup itself is inoperable, and requires repair.

Corrective Action

Contact NetApp technical support.

Syslog Message

FlexGroup member #%u of %u in FlexGroup %s failed to be converted into an independent FlexVol volume. The FlexGroup is inoperable. Reason: %s

Parameters

fgindex (INT): FlexGroup index of the volume being converted to a FlexVol volume.
fgmembers (INT): Total number of members in this FlexGroup.
fgname (STRING): Name of the FlexGroup containing the member being converted to a FlexVol volume.
reason (STRING): Reason why the conversion failed.

fg.unconvert.fail

Severity

ERROR

Description

This message occurs when a member of a FlexGroup has fails to be converted into an independent FlexVol® volume. The FlexGroup is still functional.

Corrective Action

Ensure that the FlexGroup is a valid candidate for the unconvert operation, and then retry the command. If the error persists, contact NetApp technical support.

Syslog Message

FlexGroup member #%u of %u in FlexGroup %s failed to be converted into an independent FlexVol volume. Reason: %s

Parameters

fgindex (INT): FlexGroup index of the volume being converted to a FlexVol volume.
fgmembers (INT): Total number of members in this FlexGroup.
fgname (STRING): Name of the FlexGroup containing the member being converted to a FlexVol volume.
reason (STRING): Reason why the conversion failed.

fg.unconvert.start

Severity

NOTICE

Description

This message occurs when a member of a FlexGroup, usually the root constituent, is being converted to an independent FlexVol® volume.

Corrective Action

(None).

Syslog Message

Starting conversion of FlexGroup member #%u of %u in FlexGroup %s into an independent FlexVol volume.

Parameters

> **fgindex** (INT): FlexGroup index of the volume being converted to a FlexVol volume.
> **fgmembers** (INT): Total number of members in this FlexGroup.
> **fgname** (STRING): Name of the FlexGroup containing the member being converted to a FlexVol volume.

fg.unconvert.success

Severity

> NOTICE

Description

> This message occurs when a member of a FlexGroup is successfully converted to an independent FlexVol® volume.

Corrective Action

> (None).

Syslog Message

> FlexGroup member #%u of %u in FlexGroup %s was successfully converted into an independent FlexVol volume.

Parameters

> **fgindex** (INT): FlexGroup index of the volume being converted to a FlexVol volume.
> **fgmembers** (INT): Total number of members in this FlexGroup.
> **fgname** (STRING): Name of the FlexGroup containing the member being converted to a FlexVol volume.

fg.writeback events

fg.writeback.delta.checker

Severity

> NOTICE

Description

> This message occurs when an inconsistency is discovered during a writeback. The writeback is ignored, so that the inconsistency does not get transferred to the cache origin.

Corrective Action

> (None).

Syslog Message

> Writeback operation failed for %s at line %d (%s).

Parameters

> **fh** (STRING): File handle of the affected inode.
> **source** (INT): Location of the failing writeback validation test.
> **state** (STRING): Description of the inconsistency.

fgr events

fgr.metadata events

fgr.metadata.repaired

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the volume capacity rebalancing metadata. As a consequence, the inconsistent metadata is deleted and new metadata will be repopulated according to latest volume capacity rebalancing state.

Corrective Action

None.

Syslog Message

The system detected an inconsistency in the volume capacity rebalancing metadata associated with volume %s:%s.

Parameters

vserveruuid (STRING): Universal unique identifier (UUID) of the volume's Vserver.
volname (STRING): Volume name.

fips events

fips.post events

fips.post.failure

Severity

ERROR

Description

This message occurs when an unrecoverable error prevents initialization of the cryptographic subsystem into FIPS mode. No SSL communication will be possible with the storage system in this state. Other ONTAP features may also be affected by the lack of cryptographic operations.

Corrective Action

To operate in non FIPS cryptographic mode, turn off FIPS mode for the SSL interface using command "security config modify -interface SSL -is-fips-enabled false" and restart the system. For more information or assistance, contact NetApp technical support.

Syslog Message

SSL interface disabled due to failure of FIPS mode cryptographic services.

Parameters

(None).

firmware events

firmware.file events

firmware.file.invalid

Severity

ERROR

Description

This message occurs when the system detects an invalid disk or shelf firmware file. This file cannot be used to update firmware on any disk or shelf device. This message repeats every 24 hours as long as the invalid file is present. There might be other invalid files on the system, and messages for those files are suppressed if they are detected within 24 hours of this event.

Corrective Action

Check your support provider for more information about obtaining the latest disk and shelf firmware. If the problem persists, contact NetApp technical support.

Syslog Message

%s %s failed verification due to: %s.

Parameters

fwFileType (STRING): Type of the firmware file, for example disk or shelf firmware file.
fwFileName (STRING): Name of the firmware file.
reason (STRING): Reason for mismatch.

flexcache events

flexcache.attrib events

flexcache.attrib.sync.failed

Severity

ALERT

Description

This message occurs when when syncing properties between an origin of a FlexCache volume and its FlexCache volume fails, and due to which FlexCache volume may not be able to proceed with accurate data.

Corrective Action

Use the "volume flexcache sync-properties" command on the cluster hosting the FlexCache volume to sync the origin volume properties with the FlexCache volume.

Syslog Message

Failed to sync the FlexCache configuration for cluster %s in Vserver %s hosting FlexCache volume %s.

Parameters

cacheCluster (STRING): Name of the cluster hosting the FlexCache volume.
cacheVserver (STRING): Name of the Vserver hosting the FlexCache volume.
cacheVolName (STRING): Name of FlexCache volume for which sync failed.

flexcache.attrib.sync.passed

Severity

NOTICE

Description

This message occurs when origin of a FlexCache volume properties sync succeeds for all connected FlexCache volumes.

Corrective Action

(None).

Syslog Message

Sync of origin of a FlexCache volume %s in Vserver %s succeeded for all connected FlexCache volumes.

Parameters

originVolName (STRING): Origin of a FlexCache volume.
originVserver (STRING): Name of the Vserver hosting the origin of a FlexCache volume.

flexcache.attrib.sync.warn

Severity

NOTICE

Description

This message occurs when syncing properties between an origin of a FlexCache volume and its FlexCache volume fails, and the sync operation will be retried.

Corrective Action

Use the "volume flexcache sync-properties" command on the cluster hosting the FlexCache volume to sync the origin volume properties with the FlexCache volume.

Syslog Message

Failed to sync the FlexCache configuration for cluster %s in Vserver %s hosting FlexCache volume %s. Operation will be retried.

Parameters

cacheCluster (STRING): Name of the cluster hosting the FlexCache volume.
cacheVserver (STRING): Name of the Vserver hosting the FlexCache volume.
cacheVolName (STRING): Name of FlexCache volume for which sync failed.

flexcache.autogrow events

flexcache.autogrow.fail

Severity

ERROR

Description

This message occurs when automatically growing a FlexCache volume fails because the total cluster-wide FlexCache provisioned space has exceeded the licensed limit.

Corrective Action

To increase the licensed capacity, install a new license in the cluster.

Syslog Message

Autosize of FlexCache volume '%s%s%s' failed because the total cluster-wide FlexCache provisioned space has exceeded the licensed limit in the cluster %s.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
cluster_uuid (STRING): UUID of the Cluster.

flexcache.cacheconnected events

flexcache.cacheConnected

Severity

INFORMATIONAL

Description

This message occurs when a FlexCache® origin volume establishes communication with its cache volume.

Corrective Action

No action required.

Syslog Message

FlexCache origin volume with Name %s MSID %lu on Vserver Name %s UUID %s is connected with FlexCache volume with Vserver UUID %s and MSID %lu.

Parameters

originVolumeName (STRING): Origin Volume name.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.
originVserverName (STRING): Vserver name of the origin volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.

flexcache.cachedisconnected events

flexcache.cacheDisconnected

Severity

EMERGENCY

Description

This message occurs when a FlexCache® origin volume cannot communicate with its cache volume. The cache volume might therefore present stale data to its clients until the connection is reestablished.

Corrective Action

Verify that the origin volume can connect with the FlexCache volume. If both volumes are within the same cluster, check the health of the owning nodes by using the "system node show" command. If the volumes are on different clusters, ensure that the intercluster LIFs on each cluster can connect by using the "network ping" command.

Syslog Message

FlexCache origin volume with Name %s MSID %lu on Vserver Name %s UUID %s is disconnected from FlexCache volume with Vserver UUID %s and MSID %lu.

Parameters

originVolumeName (STRING): Origin Volume name.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.
originVserverName (STRING): Vserver name of the origin volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.

flexcache.capacity events

flexcache.capacity.exceeded

Severity

ERROR

Description

This message occurs when the total cluster-wide FlexCache provisioned space has exceeded the licensed limit.

Corrective Action

To increase the licensed capacity, install a new license in the cluster.

Syslog Message

The total cluster-wide FlexCache provisioned space has exceeded the licensed limit. Cluster id: %s, Current usage: %s, Licensed capacity: %s.

Parameters

cluster_uuid (STRING): UUID of the Cluster.
used_capacity (STRING): Total FlexCache provisioned space in the cluster.
licensed_capacity (STRING): FlexCache licensed capacity.

flexcache.conf events

flexcache.conf.refreshFailed

Severity

ALERT

Description

This message occurs when FlexCache configuration refresh fails. If this event happens, FlexCache will not be able to reach to its origin which will cause FlexCache to serve only cached data. This message occurs at most once every 30 minutes.

Corrective Action

Use the "volume flexcache config-refresh" command on the cluster hosting the FlexCache volume to refresh the origin volume configuration on FlexCache volume.

Syslog Message

Failed to refresh FlexCache configuration for peer vserver UUID %s and peer volume MSID %lu. isPeerOrigin : %u.

Parameters

peerVserverUuid (STRING): Peer vserver UUID in string format for which refresh failed.
peerVolMsid (LONGINT): Peer volume MSID for which refresh failed.
isPeerOrigin (INT): Origin peer volume or cache peer volume for which refresh failed.

flexcache.config events

flexcache.config.sync.failed

Severity

ERROR

Description

This message occurs when the FlexCache volume expand operation fails to synchronize the FlexCache configuration information between the newly created constituent volume and the origin cluster.

Corrective Action

Use the "volume flexcache config-refresh" command on the origin cluster to update the FlexCache configuration.

Syslog Message

Volume expand failed to create the cache configuration for FlexCache volume "%s" in Vserver "%s" on the origin of the FlexCache cluster. Error: %s.

Parameters

cacheVolName (STRING): Name of the FlexCache volume.
cacheVserver (STRING): Name of the Vserver hosting the FlexCache volume.
errorString (STRING): Error string.

flexcache.encryption events

flexcache.encryption.mismatch.with.origin

Severity

ALERT

Description

This message occurs when a plaintext FlexCache volume has been created for an encrypted origin volume.

Corrective Action

(None).

Syslog Message

A plaintext FlexCache volume "%s" in Vserver "%s" has been created for origin volume "%s" in Vserver "%s".

Parameters

originVolumeName (STRING): Origin Volume Name.
cacheVolumeName (STRING): Cache Volume Name.
cacheVserverName (STRING): Cache Vserver Name.
originVserverName (STRING): Origin Vserver Name.

flexcache.featuredisabled events

flexcache.featureDisabled

Severity

ERROR

Description

This message occurs when an attempt is made to mount a FlexCache volume. FlexCache is no longer supported, please remove any remaining FlexCache volumes left over from upgrading the cluster.

Corrective Action

Delete all FlexCache volumes in the cluster. They can be displayed by using the "volume flexcache show" command.

Syslog Message

(None).

Parameters

volume (STRING): FlexCache volume involved.

flexcache.mcc events

flexcache.mcc.refresh.failed

Severity

ERROR

Description

This message occurs when a FlexCache® configuration refresh operation fails during MetroCluster(tm) switchover and switchback. Data access through FlexCache volumes might be impacted as a result.

Corrective Action

First, verify that the two Vservers in question are peered by using the "vserver peer show" command. Next, enter the "flexcache config-refresh -peer-server <peer-vserver> -peer-volume <peer-volume> -peer -endpoint-type <peer-endpoint-type>" command on a node within the cluster that directly manages the peer endpoint.

Syslog Message

FlexCache configuration refresh failed on peer Vserver %s for peer volume %s and peer endpoint %s on cluster %s.

Parameters

peeredVserverUuid (STRING): UUID of the peered Vserver.
peerVolumeName (STRING): Name of the peer volume.
peerEndPointType (STRING): Peer endpoint type.
clusterUuid (STRING): UUID of the cluster with the peer endpoint.
localVserverUuid (STRING): UUID of the local Vserver.

flexcache.name events

flexcache.name.sync.failed

Severity

ERROR

Description

This message occurs when the FlexCache® volume rename operation fails to synchronize the FlexCache name information to the origin cluster. Because of this failure, the "volume flexcache origin show-caches" command shows the old FlexCache volume name for the origin relationship.

Corrective Action

Use the "volume flexcache sync-properties" command on the FlexCache cluster to update the FlexCache name on the origin cluster. Make sure that the FlexCache cluster and the origin of the FlexCache cluster are running on the same ONTAP® build.

Syslog Message

Volume rename failed to update the new FlexCache volume "%s" on Vserver "%s" to the origin of the FlexCache cluster. Error: %s.

Parameters

cacheVolName (STRING): Name of the FlexCache volume.
cacheVserver (STRING): Name of the Vserver hosting the FlexCache volume.
errorString (STRING): Error string.

flexcache.nearly events

flexcache.nearly.full

Severity

ERROR

Description

This message occurs when the total cluster-wide FlexCache provisioned space has nearly reached the licensed limit.

Corrective Action

To increase the licensed capacity, install a new license in the cluster.

Syslog Message

The total cluster-wide FlexCache provisioned space has nearly reached the licensed limit. Cluster id: %s, Current usage: %s, Licensed capacity: %s.

Parameters

cluster_uuid (STRING): UUID of the Cluster.
used_capacity (STRING): Total FlexCache provisioned space in the cluster.
licensed_capacity (STRING): FlexCache licensed capacity.

flexcache.origin events

flexcache.origin.config.sync.failed

Severity

ERROR

Description

This message occurs when the origin of the FlexCache volume expand operation fails to synchronize the configuration information between the newly created constituent volume and the cache cluster.

Corrective Action

Use the "volume flexcache config-refresh" command on the cache cluster to update the origin of the FlexCache configuration.

Syslog Message

Volume expand failed to create the origin configuration for the origin of the FlexCache volume "%s" in Vserver "%s" on the FlexCache cluster. Error: %s.

Parameters

originVolName (STRING): Name of the origin of the FlexCache volume.
cacheVserver (STRING): Name of the Vserver hosting the origin of the FlexCache volume.
errorString (STRING): Error string.

flexcache.origin.size.sync.failed.disconnected.mode

Severity

ERROR

Description

This message occurs when syncing the size property of the origin volume between an origin of a FlexCache volume and its FlexCache volume fails because the cluster containing the FlexCache volume is not reachable.

Corrective Action

Make sure that the cluster containing the FlexCache volume is reachable. Make sure that the FlexCache cluster and the origin of the FlexCache cluster are running on the same ONTAP® build.

Syslog Message

Failed to sync origin size property for FlexCache Cluster "%s". Error: %s

Parameters

originClusterUuid (STRING): Cache Cluster UUID.
errorString (STRING): Error string.

flexcache.origin.size.sync.failed.for.cache.cluster

Severity

ERROR

Description

This message occurs when syncing the size property of the origin volume between an origin of a FlexCache volume and its FlexCache volume fails because we encountered some error on the cluster containing the FlexCache volume.

Corrective Action

Look for an EMS on the cache cluster and take the corrective action needed. Make sure that the FlexCache cluster and the origin of the FlexCache cluster are running on the same ONTAP® build.

Syslog Message

Failed to sync origin size property for Cache Cluster "%s".

Parameters

cacheClusterUuid (STRING): Cache Cluster UUID.

flexcache.origin.size.sync.failed.for.cache.volume

Severity

ERROR

Description

This message occurs when syncing the size property of the origin volume between an origin of a FlexCache volume and its FlexCache volume fails, and the sync operation will be retried.

Corrective Action

Take the appropriate action depending on the error message. Make sure that the FlexCache cluster and the origin of the FlexCache cluster are running on the same ONTAP® build.

Syslog Message

Failed to sync origin size property for FlexCache volume "%s" in Vserver "%s". Error: %s.

Parameters

volumeName (STRING): Cache Volume Name.
vserverName (STRING): Cache Vserver Name.
errorString (STRING): Error string.

flexcache.origincleanup events

flexcache.origincleanup.fail

Severity

ERROR

Description

This message occurs when the origin of a FlexCache® volume cleanup job fails to clean up the origin volume. All future FlexCache operations on the origin volume will fail.

Corrective Action

Use the "volume flexcache origin cleanup-cache-relationship -force-retry true" command on the origin cluster to cleanup origin of a FlexCache volume. If the problem persists then contact technical support for assistance.

Syslog Message

Origin volume cleanup job failed to clean up the origin volume of the FlexCache volume %s in Vserver %s.

Parameters

originVolName (STRING): Name of the origin volume of the FlexCache volume.
originVserver (STRING): Name of the Vserver hosting the origin of a FlexCache volume.

flexcache.origincleanup.retry

Severity

ERROR

Description

This message occurs when the RAL cleanup at the origin volume of a FlexCache® volume fails due to timeout. All future FlexCache operations on the origin volume will fail.

Corrective Action

Use the "volume flexcache origin cleanup-cache-relationship -force-retry true" command on the origin cluster to cleanup origin of a FlexCache volume. If the problem persists then contact technical support for assistance.

Syslog Message

RAL cleanup incomplete for the origin volume of the FlexCache volume %s in Vserver %s.

Parameters

originVolName (STRING): Name of the origin volume of the FlexCache volume.
originVserver (STRING): Name of the Vserver hosting the origin of a FlexCache volume.

flexcache.originconnected events

flexcache.originConnected

Severity

INFORMATIONAL

Description

This message occurs when a FlexCache® volume establishes communication with its origin volume.

Corrective Action

No action required.

Syslog Message

FlexCache volume with Name %s MSID %lu on Vserver Name %s UUID %s is connected with its origin volume with Vserver UUID %s and MSID %lu.

Parameters

cacheVolumeName (STRING): Volume Name of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.
cacheVserverName (STRING): Vserver Name of the FlexCache volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.

flexcache.origindisconnected events

flexcache.originDisconnected

Severity

EMERGENCY

Description

This message occurs when a FlexCache® volume cannot communicate with its origin volume. The cache volume might therefore present stale data to its clients. Client I/O to the cache volume might also not appear to respond if the client is requesting data that has not been cached.

Corrective Action

Verify that the FlexCache volume can connect with its origin volume. If both volumes are within the same cluster, check the health of the owning nodes by using the "system node show" command. If the volumes are on different clusters, ensure that the intercluster LIFs on each cluster can connect by using the "network ping" command.

Syslog Message

FlexCache volume with Name %s MSID %lu on Vserver Name %s UUID %s is disconnected from its origin volume with Vserver UUID %s and MSID %lu.

Parameters

cacheVolumeName (STRING): Volume Name of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.
cacheVserverName (STRING): Vserver Name of the FlexCache volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.

flexcache.originfull events

flexcache.originFull

Severity

ALERT

Description

This message occurs when a FlexCache® origin volume cannot serve data to cache volume because origin volume is full. The cache volume might therefore not be able to serve data to its clients until the origin has free space.

Corrective Action

Ensure that the origin volume has free space.

Syslog Message

FlexCache origin volume with Name %s MSID %lu on Vserver Name %s UUID %s may not be able to serve data to FlexCache volume with Vserver UUID %s and MSID %lu because origin volume is full.

Parameters

originVolumeName (STRING): Origin Volume name.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.
originVserverName (STRING): Vserver name of the origin volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.

flexcache.originfull_1 events

flexcache.originFull_1

Severity

ALERT

Description

This message occurs when a FlexCache® volume cannot retrieve data from its origin volume because origin volume is full. Client I/O to the cache volume might not appear to respond if the client is requesting data that has not been cached.

Corrective Action

Ensure that the origin volume has free space.

Syslog Message

FlexCache volume with Name %s MSID %lu on Vserver Name %s UUID %s may not be able to retrieve data from its origin volume with Vserver UUID %s and MSID %lu because origin volume is full.

Parameters

cacheVolumeName (STRING): Volume Name of the FlexCache volume.
cacheMsid (LONGINT): MSID of the FlexCache volume.
cacheVserverName (STRING): Vserver Name of the FlexCache volume.
cacheVserverUuid (STRING): Vserver UUID of the FlexCache volume.
originVserverUuid (STRING): Vserver UUID of the origin volume.
originMsid (LONGINT): Master data set identifier (MSID) of the origin volume.

flexcache.softevict events

flexcache.softEvict.failed

Severity

ERROR

Description

This message occurs when soft evicting a cache volume fails. The cache volume might therefore present stale data to its clients.

Corrective Action

(None).

Syslog Message

Soft eviction of constituent DSID %lu failed.

Parameters

constituentDsid (LONGINT): Constituent's DSID.

flexcache.softEvict.success

Severity

INFORMATIONAL

Description

This message occurs on successfully soft evicting the cache volume.

Corrective Action

No Action Required.

Syslog Message

Constituent DSID %lu is successfully soft evicted.

Parameters

constituentDsid (LONGINT): Constituent's DSID.

fli events

fli.lun events

fli.lun.import.checkpoint

Severity

ERROR

Description

This message occurs when a checkpoint record delete fails. Checkpoint is metadata information stored with the NetApp LUN attribute stream for tracking import progress. An attempt is made to delete this metadata during import stop or delete operations.

Corrective Action

This record can remain in the LUN attribute stream without any harm. It could occupy ~100-200 bytes of space in the LUN attribute stream. If that is an issue, a support personnel could be contacted to delete this record.

Syslog Message

Import checkpoint record could not be deleted for LUN %s - Reason:%s

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fli.lun.import.complete

Severity

INFORMATIONAL

Description

This message occurs when a foreign LUN import is complete.

Corrective Action

(None).

Syslog Message

Import of foreign LUN %s of size %lld bytes from array model %s belonging to vendor %s is successfully completed. Destination NetApp LUN is %s.

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
Size (LONGINT): Size of the foreign LUN.
ForeignArrayModelID (STRING): Foreign array model ID.
ForeignArrayVendor (STRING): Foreign array vendor name.
LUNSerialNumber (STRING): Serial number of the LUN.

fli.lun.import.failed

Severity

ERROR

Description

This message occurs when a foreign LUN import goes into failed state. 1. Data could not be read from the source(foreign LUN). 2. Data could not be written to the destination(NetApp LUN). 3. This is an Internal/metadata related error.

Corrective Action

1. Verify the connectivity to the foreign disk. 2. Verify that the destination volume is online and has enough space by using "volume show" command. 3. Run the "lun import pause" command followed by a "lun import resume" command. In certain cases, the import might need to be restarted (Use "lun import stop" command followed by "lun import start" command). The ultimate recovery is to delete this relationship (with -force option) and create it again.

Syslog Message

Import of foreign LUN %s to LUN %s failed - Reason:%s

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fli.lun.import.failed.r2

Severity

ERROR

Description

This message occurs when a foreign LUN import goes into a failed state due to one of the following reasons: 1. Data could not be read from the source foreign LUN. 2. Data could not be written to the destination LUN. 3. This is an internal error or a metadata related error.

Corrective Action

1. Verify the connectivity to the foreign disk. 2. Verify that the destination LUN has enough space by using the "lun show -fields physical-used, physical-used-by-snapshots, se-ratio" command. 3. Run the "lun import pause" command followed by the "lun import resume" command. In certain cases, the import might need to be restarted. (Use "lun import stop" command followed by "lun import start" command). The ultimate solution is to delete this relationship (with -force option) and create it again. 4. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Import of foreign LUN %s to LUN %s failed - Reason:%s

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fli.lun.import.inconsistent

Severity

ERROR

Description

This message occurs when the import inconsistent flag cannot be unset. The import inconsistent flag is a system attribute for the NetApp LUN that is set during import progress, to indicate inconsistent data in the destination LUN. This is to discourage restore operations on LUN Snapshot(tm) copies created during import. A best effort is done to unset this flag after the import is complete, and also during import stop and delete operations. It is safe to perform restore operations if data in the destination LUN is known to be successfully verified.

Corrective Action

(None).

Syslog Message

Import inconsistent flag could not be unset for LUN %s - Reason:%s

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fli.lun.verify.complete

Severity

INFORMATIONAL

Description

This message occurs when a foreign LUN import verify is complete.

Corrective Action

(None).

Syslog Message

Import verify of foreign LUN %s of size %lld bytes from array model %s belonging to vendor %s with NetApp LUN %s is successfully completed.

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
Size (LONGINT): Size of the foreign LUN.
ForeignArrayModelID (STRING): Foreign array model ID.
ForeignArrayVendor (STRING): Foreign array name.
LUNSerialNumber (STRING): Serial number of the LUN.

fli.lun.verify.failed

Severity

ERROR

Description

This message occurs when a foreign LUN import verify fails. 1. Data could not be read from the source(foreign LUN). 2. Data could not be written to the destination(NetApp LUN). 3. There was a data mismatch during the verify operation. 4. There was an internal error.

Corrective Action

1. For a data mismatch, start the import operation again. 2. Verify the connectivity to the foreign disk. 3. Verify that destination volume is in a healthy state. In certain cases, the verify operation might need to be restarted (Use "lun import verify stop" command followed by "lun import verify start" command). The ultimate recovery is to delete this relationship (with -force option) and create it again.

Syslog Message

Import verify of foreign LUN %s and NetApp LUN %s failed - Reason:%s

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fli.lun.verify.failed.r2

Severity

ERROR

Description

This message occurs when a foreign LUN import verify fails. 1. Data could not be read from the source foreign LUN. 2. Data could not be written to the destination LUN. 3. There was a data mismatch during the verify operation. 4. There was an internal error.

Corrective Action

1. For a data mismatch, start the import operation again. 2. Verify the connectivity to the foreign disk. 3. In certain cases, the verify operation might need to be restarted. (Use "lun import verify stop" command followed by "lun import verify start" command). If necessary, delete this relationship (with -force option) and create it again.

Syslog Message

Import verify of foreign LUN %s and destination LUN %s failed - Reason:%s.

Parameters

DiskSerialNumber (STRING): Foreign disk serial number.
LUNSerialNumber (STRING): Serial number of the LUN.
FailureReason (STRING): Internal error reason.

fm events

fm.cpuutilduringarl events

fm.cpuUtilDuringARL

Deprecated

Deprecated as of version 9.0.

Severity

NOTICE

Description

This message occurs at the start of an aggregate relocation (ARL) and at the completion of an ARL. It records the maximum, minimum, and average CPU and disk utilization on the node executing the ARL.

Corrective Action

(None).

Syslog Message

CPU and disk utilization during the %d seconds %s: cpu_util_high: %lld; cpu_util_low: %lld; cpu_util_avg: %lld; disk_util_high: %lld; disk_util_low: %lld; disk_util_avg: %lld

Parameters

window_sz (INT): Duration, in seconds, over which CPU and disk utilization are tracked.
when (STRING): Event during which CPU and disk utilization are tracked.
cpu_util_high (LONGINT): Maximum CPU utilization.
cpu_util_low (LONGINT): Minimum CPU utilization.
cpu_util_avg (LONGINT): Average CPU utilization.
disk_util_high (LONGINT): Maximum disk utilization.
disk_util_low (LONGINT): Minimum disk utilization.
disk_util_avg (LONGINT): Average disk utilization.

fm.cpuutilduringtransition events

fm.cpuUtilDuringTransition

Severity

NOTICE

Description

This message occurs during various failover and aggregate mobility events, including start of a takeover, end of a successful takeover, start of a CFO giveback, after completion of SFO giveback and completion of an aggregate relocation. This message records the maximum, minimum, and average CPU and disk utilization on the node executing the failover or aggregate mobility operation.

Corrective Action

(None).

Syslog Message

CPU and disk utilization during the %d seconds %s: cpu_util_high: %lld; cpu_util_low: %lld; cpu_util_avg: %lld; disk_util_high: %lld; disk_util_low: %lld; disk_util_avg: %lld

Parameters

window_sz (INT): Duration, in seconds, over which CPU and disk utilization are tracked.
when (STRING): Event during which CPU and disk utilization are tracked.
cpu_util_high (LONGINT): Maximum CPU utilization.
cpu_util_low (LONGINT): Minimum CPU utilization.
cpu_util_avg (LONGINT): Average CPU utilization.
disk_util_high (LONGINT): Maximum disk utilization.
disk_util_low (LONGINT): Minimum disk utilization.
disk_util_avg (LONGINT): Average disk utilization.

fm.overridembxuncertain events

fm.overrideMbxUncertain

Severity

NOTICE

Description

This message occurs when the user has chosen to override a mailbox uncertain state using the CTRL_O option. The node could have gotten into the mailbox uncertain state if, while booting up, it finds that one or more disks are missing and it does not have the requisite number of mailbox disks to boot up. If the override was successful, at least half of the online disks were also present in the mailbox hints bootarg and the node will boot up. If the override was unsuccessful, the node continues to remain in an uncertain mailbox state and will not boot up completely.

Corrective Action

(None).

Syslog Message

HA mailbox uncertain state overridden.

Parameters

(None).

fmmb events

fmmb.add events

fmmb.add.problem

Severity

ERROR

Description

This event is issued when the HA mailbox is attempting to add a mailbox disk and a problem occurred.

Corrective Action

(None).

Syslog Message

Error attempting to add disk %s as a %s HA mailbox disk.

Parameters

disk (STRING): The name of the disk. If the disk name is not available, a ?.? will be used.
host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.blobnotfound events

fmmb.BlobNotFound

Severity

ALERT

Description

This message occurs when a mailbox 'blob' is not read from the on-disk mailbox data structure. A 'blob' is a piece of data which has been stored for a non-High Availability (HA) Data ONTAP® subsystem in the mailbox.

Corrective Action

If the blob id is "3" and this is a 2-node cluster, use the 'cluster ha modify -configure' command to unconfigure ha and then reconfigure it.

Syslog Message

(None).

Parameters

blob_id (INT): 'blob' ID.
owner (STRING): Owner of the blob, either PARTNER or LOCAL.
reason (STRING): Reason for the problem.

fmmb.blobnotwritten events

fmmb.BlobNotWritten

Deprecated

Deprecated as of version 9.2.

Severity

ALERT

Description

This message occurs when a mailbox 'blob' write operation to the on-disk mailbox data structure fails. A 'blob' is a piece of data that has been stored for a non-high availability (HA) Data ONTAP® subsystem in the HA mailbox.

Corrective Action

If the blob ID is "3" and this is a two-node cluster, use the 'cluster ha modify -configure' command to unconfigure HA and then reconfigure it.

Syslog Message

(None).

Parameters

blob_id (INT): 'blob' ID.
owner (STRING): Owner of the blob, either PARTNER or LOCAL.
reason (STRING): Reason for the problem.

fmmb.blobwritten events

fmmb.BlobWritten

Severity

INFORMATIONAL

Description

This message occurs when a mailbox 'blob' write to the on-disk mailbox data structure succeeds. A 'blob' is a piece of data that has been stored for a non-high availability (HA) Data ONTAP® subsystem in the HA mailbox.

Corrective Action

(None).

Syslog Message

Blob %d: bytes written %d: data: %llx.

Parameters

blob_id (INT): 'blob' ID.
blob_data_len (INT): Total number of bytes of data written.
data (LONGINTHEX): First eight bytes of the data written.

fmmb.current events

fmmb.current.lock.disk

Severity

INFORMATIONAL

Description

This event is issued when HA mailbox disks are discovered or allocated.

Corrective Action

(None).

Syslog Message

Disk %s is a %s HA mailbox disk.

Parameters

disk (STRING): The name of the disk. If the disk name is not available, the name ?.? will be used.
host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.destroy events

fmmb.destroy.mbx

Severity

INFORMATIONAL

Description

This event is issued when the high-availability (HA) Mailbox contents are cleared, typically by the 'mailbox destroy' command.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_name (STRING): Disk name on which the mailbox was cleared.

fmmb.destroy.mbx.fail

Severity

NOTICE

Description

This event is issued when an attempt is made to destroy the mailbox contents on the disk and this fails.
Data ONTAP to a 7.0 or later version.

Corrective Action

(None).

Syslog Message

Failed to clear mailbox on disk:%s, error:%s.

Parameters

disk_name (STRING): disk name on which we are trying to clear the mailbox.
error (STRING): The reason why mailbox clear failed.

fmmb.disk events

fmmb.disk.IDchange

Severity

INFORMATIONAL

Description

This event is issued when the unique identifier of one of the disks used by the HA mailbox has changed.

Corrective Action

(None).

Syslog Message

Disk %s has changed its unique identifier.

Parameters

disk (STRING): The name of the disk whose identifier has changed.

fmmb.disk.notAccsble

Severity

NOTICE

Description

This message occurs when mailbox disks of the specified host are not accessible.

Corrective Action

(None).

Syslog Message

All %s mailbox disks are inaccessible.

Parameters

host (STRING): Host string, which is either local or partner.

fmmb.exthdr events

fmmb.exthdr.null

Severity

ERROR

Description

This event is issued when the HA Mailbox extension header is invalid. The extension header is an on-disk structure which describes the opaque client blocks and major reset structures.

Corrective Action

(None).

Syslog Message

HA Mailbox extension header is null.

Parameters

host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.inststat events

fmmb.instStat.change

Severity

INFORMATIONAL

Description

This message occurs whenever the mailbox instance state changes.

Corrective Action

(None).

Syslog Message

%s on %s side.

Parameters

buff (STRING): Instance state string.
host (STRING): Host string, which is either local or partner.

fmmb.lock events

fmmb.lock.disk.remove

Severity

INFORMATIONAL

Description

This event is issued when a disk is removed from the HA mailbox disk lock set.

Corrective Action

(None).

Syslog Message

Disk %s removed from %s mailbox set.

Parameters

disk (STRING): The name of the disk. If the disk name is not available, a ?.? will be used.
host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.major events

fmmb.major.reset.invalid

Severity

ALERT

Description

This event is issued when the HA Mailbox major reset data should exist and it doesn't. The major reset data in the mailbox is created and used when there is a major change of information kept in the HA mailbox records.

Corrective Action

(None).

Syslog Message

HA %s Mailbox major reset header information is invalid.

Parameters

host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.mediator events

fmmb.mediator.lckdiskSuggest

Severity

INFORMATIONAL

Description

This message occurs when a mailbox disk from the mediator site is selected to be included in the mailbox disk list.

Corrective Action

(None).

Syslog Message

(None).

Parameters

side (INT): The mailbox instance side. The value of 0 for local mailbox and the value of 1 for partner mailbox.

uuid (STRING): Disk unique ID of the mailbox disk on mediator site.

fmmb.mediator.noLckdisk

Severity

INFORMATIONAL

Description

This message occurs when there is no mediator mailbox detected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

side (INT): The mailbox instance side. The value of 0 for local mailbox and the value of 1 for partner mailbox.

fmmb.mediator.nullLckdiskSuggest

Severity

INFORMATIONAL

Description

This message occurs when there is null mediator mailbox detected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

side (INT): The mailbox instance side. The value of 0 for local mailbox and the value of 1 for partner mailbox.

fmmb.mmr events

fmmb.MMR.payload.bad

Severity

ALERT

Description

This event is issued when the outbound FM payload area is found to be corrupted and the master mailbox record is missing.

Corrective Action

(None).

Syslog Message

%s outbound FM payload area is invalid and the master mailbox record is missing.

Parameters

host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.newdisksuggestion events

fmmb.NewDiskSuggestion

Severity

INFORMATIONAL

Description

This message occurs when RAID sends to the high-availability (HA) mailbox code a list of disks to use for HA mailbox disks.

Corrective Action

(None).

Syslog Message

(None).

Parameters

count (INT): Number of suggested disks.
new (STRING): List of suggested disks.
old (STRING): Current list of HA mailbox disks.

fmmb.oldformatcleared events

fmmb.oldFormatCleared

Severity

INFORMATIONAL

Description

This event is issued when the older format HA mailboxes (special area of disk used for bookkeeping) are cleared on an upgrade from a pre 7.0 version of Data ONTAP to a 7.0 or later version.

Corrective Action

(None).

Syslog Message

Clearing content of %s old format HA mailboxes (special area of disk used for bookkeeping).

Parameters

whichone (STRING): Either local or partner to indicate which set of HA mailboxes are being cleared.

fmmb.opaque events

fmmb.opaque.hdr.invalid

Severity

ALERT

Description

This event is issued when the HA Mailbox opaque header is invalid. The opaque area in the HA Mailbox is used by HA mailbox clients, like RAID, to store persistent information.

Corrective Action

(None).

Syslog Message

HA %s Mailbox opaque header is invalid.

Parameters

host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.

fmmb.payload events

fmmb.payload.outbound.bad

Severity

ALERT

Description

This event is issued when the outbound FM payload area is found to be corrupted. The invalid fm state information is logged. As a result of this condition the payload is zeroed and HA mailbox re-initialization is done.

Corrective Action

(None).

Syslog Message

%s outbound FM payload area is invalid with fmState of %d.

Parameters

host (STRING): The node which owns the HA mailbox disk. The node can be either local or partner.
fmState (INT): The invalid FM state information.

fmmb.revert events

fmmb.revert.opaque

Severity

ERROR

Description

This event is issued when the HA Mailbox opaque recieves a write request for the opaque area and a revert_to command is in progress. The write request is rejected. The opaque area in the HA Mailbox is used by non HA mailbox clients, like RAID, to store persistent information.

Corrective Action

(None).

Syslog Message

HA Mailbox RAID write request rejected during revert.

Parameters

(None).

fp events

fp.est events

fp.est.scan.catalog.failed

Severity

ERROR

Description

This message occurs when the volume footprint estimator scan fails to update the catalog file. This can cause footprint data reduction to be unreported post volume remount until the next scan updates the file.

Corrective Action

Check if there is atleast 4K worth of space available for the catalog metafile in the volume. Use "df <vol-name>" command to see available space details.

Syslog Message

Volume footprint estimator scan catalog update fails on "%s" - %s.

Parameters

vol (STRING): Volume name.
fail_message (STRING): Update failure reason.

fp.est.scan.catalog.updated

Severity

NOTICE

Description

This message occurs when related information of the volume footprint estimator scan is updated on the catalog file.

Corrective Action

(None).

Syslog Message

Volume footprint estimator scan catalog updated on '%s' (SE ratio local: %s, SE ratio migrate: %s, Incompressible: %d%%, Hot data: %llu%%, Mode: %d, SE ratio cold migrate: %s).

Parameters

vol (STRING): Volume name.
se_ratio_local (STRING): Storage efficiency ratio for local reporting.
se_ratio_migrate (STRING): Storage efficiency ratio for migrate reporting.
incomp_data_pct (INT): Incompressible data percentage.
hot_data_pct (LONGINT): Hot data percentage.
scan_mode (INT): Scan mode.
se_ratio_cold_migrate (STRING): Storage efficiency ratio for cold migrate reporting.

fp.est.scan.start.failed

Severity

ERROR

Description

This message occurs when the volume footprint estimator scan fails to start. This might cause footprint data reduction reporting to be inaccurate. But the scan is expected to be triggered again in the next cycle which is likely to be the next day.

Corrective Action

Scan will be triggered again in the next cycle which is likely to be the next day.

Syslog Message

Volume footprint estimator scan fails to start on "%s" - %s.

Parameters

vol (STRING): Volume name.
fail_message (STRING): Scan failure reason.

fpolicy events

fpolicy.eagain events

fpolicy.eagain.disconnect

Severity

ALERT

Description

This message occurs when the TCP connection to the FPolicy server is broken four times in a two minute interval due to EAGAIN error. ONTAP will not establish a new connection and FPolicy notifications will not be sent to the server.

Corrective Action

Persistent EAGAIN errors indicate slow network or slow/unresponsive FPolicy server. Check the connection between the FPolicy server and the node or contact the FPolicy application's vendor support to address the slow/unresponsive server.

Syslog Message

Connection to the FPolicy server "%s" of policy "%s" is broken for Vserver %s (reason: "%s").

Parameters

fpserver (STRING): IP address of the FPolicy server.
policy (STRING): Name of the policy.
vserver (STRING): Vserver Name.
reason (STRING): Reason for disconnection.

fpolicy.eagain.on.write

Severity

NOTICE

Description

This message occurs when there is no space in the send buffer for sending a message to the FPolicy server. The FPolicy server is apparently slow in reading notifications.

Corrective Action

Occasional EAGAIN (resource temporarily unavailable) errors can occur for transient network issues. If this message occurs frequently, check the connection between the FPolicy server and the node. If the errors persist, contact the FPolicy application's vendor support.

Syslog Message

Write returned EAGAIN while sending notification to the FPolicy server "%s" for Vserver %s with UUID %s.

Parameters

fpserver (STRING): IP address of the FPolicy server.
vserver (STRING): Vserver Name.
Vserver_UUID (STRING): Vserver UUID.

fpolicy.fgconversion events

fpolicy.fgconversion.warning

Severity

NOTICE

Description

This message occurs when a FlexVol® unmount notification is not sent to the FPolicy(tm) server during a FlexGroup conversion.

Corrective Action

(None).

Syslog Message

Failed to send FPolicy unmount notification for FlexVol %s of Vserver %s. FlexGroup MSID: %llu.

Parameters

vserverName (STRING): Name of the Vserver.
volumeName (STRING): Name of the volume being converted to a FlexGroup.
flexgroupMsid (LONGINTHEX): MSID of the new FlexGroup.

fpolicy.memory events

fpolicy.memory.pressure

Severity

ALERT

Description

This message occurs when either the FPolicy Service Manager (FSM) receives too many requests to process immediately, or when the number of requests is accumulating due to server connectivity issues. FSM processing time might degrade as a result.

Corrective Action

Check the connection between the node and the FPolicy server by using the "vserver fpolicy show-engine" command. Verify that FPolicy is only monitoring file operations that are recommended by the FPolicy server vendor. Verify that FPolicy is using filters recommended by the server vendor for common file operations, for example, close, read, write and open.

Syslog Message

FSM is experiencing memory pressure.

Parameters

(None).

fpolicy.outage events

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fpolicy.outage.file.invalid

Severity

ERROR

Description

This message occurs when file creation fails under the configured resiliency directory path.

Corrective Action

Check the configured resiliency directory path. To find the configured resiliency directory path by using the "vserver fpolicy policy external-engine show" command.

Syslog Message

Failed to create file under configured resiliency directory path of FPolicy external engine "%s" for policy "%s". Reason: %s.

Parameters

engine (STRING): FPolicy external engine.
policy (STRING): FPolicy policy.
reason (STRING): Reason for the failure.

fpolicy.outage.msg.lost

Severity

ERROR

Description

This message occurs when the send operation fails for the network outage notification.

Corrective Action

Find the file in the configured resiliency directory path.

Syslog Message

Failed to send outage notification message to any FPolicy server for policy "%s" and path "%s".

Parameters

policy (STRING): FPolicy policy.
path (STRING): File path.

fpolicy.outage.msg.success

Severity

NOTICE

Description

This message occurs when a network outage notification is successfully sent.

Corrective Action

(None).

Syslog Message

Outage notification message sent to at least one FPolicy server for policy "%s" and file path "%s".

Parameters

policy (STRING): FPolicy policy.
path (STRING): File path.

fpolicy.outage.over

Severity

NOTICE

Description

This message occurs when the FPolicy external engine, acting asynchronously and with resiliency support enabled, is reconnected after a network outage.

Corrective Action

(None).

Syslog Message

The network outage (duration: "%llu" sec) is over. At least one FPolicy server is now connected successfully for FPolicy external engine "%s" of policy "%s".

Parameters

Duration (LONGINT): Network outage duration in seconds.
engine (STRING): Asynchronous FPolicy external engine.
policy (STRING): FPolicy policy.

fpolicy.outage.start

Severity

NOTICE

Description

This message occurs when the FPolicy external engine, acting asynchronously and with resiliency support enabled, is disconnected due to a network outage.

Corrective Action

(None).

Syslog Message

Network outage for FPolicy external engine "%s" of policy "%s".

Parameters

engine (STRING): Asynchronous FPolicy external engine.
policy (STRING): FPolicy policy.

fpolicy.outage.timeout

Severity

NOTICE

Description

This message occurs when the maximum notification retention duration for the FPolicy external engine expires, and the engine is configured to operate asynchronously with resiliency support enabled. The storage controller stores no more notifications.

Corrective Action

(None).

Syslog Message

Maximum notification retention time has expired for FPolicy external engine "%s" of policy "%s".

Parameters

engine (STRING): Asynchronous FPolicy external engine.
policy (STRING): FPolicy policy.

fpolicy.outage.write

Severity

NOTICE

Description

This message occurs when FPolicy cannot store file notifications using the configured resiliency directory path.

Corrective Action

(None).

Syslog Message

Failed to store notifications in configured resiliency directory path of FPolicy external engine "%s" for policy "%s". Reason: %s.

Parameters

engine (STRING): FPolicy external engine.
policy (STRING): FPolicy policy.
reason (STRING): Reason for the failure.

fpolicy.outage.writes.lost

Severity

ERROR

Description

This message occurs when FPolicy fails multiple consecutive times to store file notifications using the configured resiliency directory path.

Corrective Action

Check the configured resiliency directory path. To find the configured resiliency directory path by using the "vserver fpolicy policy external-engine show" command.

Syslog Message

Unable to store notifications in configured resiliency directory path of FPolicy external engine "%s" for policy "%s".

Parameters

engine (STRING): FPolicy external engine.
policy (STRING): FPolicy policy.

fpolicy.pspath events

fpolicy.pspath.failed

Severity

ERROR

Description

This message occurs when the creation of the FPolicy persistent store active or backlog directories fails. This disrupts the persistent store workflow in FPolicy.

Corrective Action

Check the space availability and permission on volume and recreate the PS config.

Syslog Message

Failed to create FPolicy persistent store path "%s" in SVM "%s".

Parameters

path (STRING): The directory path name that failed while it's creation.
vserverName (STRING): Name of the Vserver.

fpolicy.server events

fpolicy.server.bkPressApply

Severity

INFORMATIONAL

Description

This message occurs when the FPolicy server has applied backpressure which means that the server is busy and does not want to receive requests until it removes backpressure.

Corrective Action

(None).

Syslog Message

FPolicy server "%s" has applied backpressure.

Parameters

fpserver (STRING): IP Address of the FPolicy server.

fpolicy.server.bkPressRemove

Severity

INFORMATIONAL

Description

This message occurs when the FPolicy server removes backpressure, which it has previously applied. The FPolicy server removes backpressure when it is ready to receive requests.

Corrective Action

(None).

Syslog Message

FPolicy server "%s" has removed backpressure.

Parameters

fpserver (STRING): IP Address of the FPolicy server.

fpolicy.server.connect

Severity

NOTICE

Description

This message occurs when a control channel is established between the node and the FPolicy server.

Corrective Action

(None).

Syslog Message

Control channel with the FPolicy server "%s" of policy "%s" is established for Vserver %s.

Parameters

fpserver (STRING): IP Address of the FPolicy server.
policy (STRING): Name of the policy.
vserver (STRING): Vserver Name.

fpolicy.server.connectError

Severity

ERROR

Description

This message occurs when the node fails to establish a control channel with the FPolicy server. The control channel is used for communication between the node and the FPolicy server. The error could be because of a failure in establishing TCP connection, SSL failure, FPolicy handshake failure, or some internal error.

Corrective Action

Depending on the failure reason, check the following: On the node, check whether the correct IP and port entries are specified in the policy configuration. Also, the FPolicy server should be running and listening on the port specified in the policy configuration. Run the command "network interface show" to determine that at least one data logical interface (LIF) is configured to the Vserver on the node. Run the command

"routing-groups route show" to verify that the network route exists to the FPolicy server. Run the command "network ping" to verify that the FPolicy server is reachable from the node. For any other reason, see the Cluster-Mode documentation.

Syslog Message

Node failed to establish a connection with the FPolicy server "%s" of policy "%s" for Vserver %s (reason: "%s").

Parameters

fpserver (STRING): IP address of the FPolicy server.
policy (STRING): Name of the policy.
vserver (STRING): Vserver Name.
reason (STRING): Reason for failure.

fpolicy.server.disconnect

Severity

ERROR

Description

This message occurs when the TCP connection to the FPolicy(tm) server is broken.

Corrective Action

Reestablish the connection by using "vserver fpolicy engine-connect" command.

Syslog Message

Connection to the FPolicy server "%s" of policy "%s" is broken for Vserver %s (reason: "%s").

Parameters

fpserver (STRING): IP address of the FPolicy server.
policy (STRING): Name of the policy.
vserver (STRING): Vserver Name.
reason (STRING): Reason for disconnection.

fpolicy.server.maxPendingReq

Severity

INFORMATIONAL

Description

This message occurs when the maximum outstanding requests for a FPolicy server from a node has reached. The value is configurable through CLI.

Corrective Action

If you want to increase the maximum pending request modify the "-max-server-reqs" option using command "fpolicy policy external-engine modify" from CLI.

Syslog Message

Maximum outstanding requests for the FPolicy server "%s" has reached.

fpserver (STRING): IP Address of the FPolicy server.

fpolicy.unsupportedpathlen events

fpolicy.unsupportedPathLen

Severity

NOTICE

Description

This message occurs when an FPolicy screen request has a path name longer than 4k bytes. The associated file operation will not be screened by FPolicy.

Corrective Action

If possible remove the volume generating long path notification from FPolicy screening.

Syslog Message

FPolicy notification has path names with unsupported length of "%lld". Max supported path length is %lld. The associated file operation will not be screened by FPolicy.

Parameters

currentPathLen (LONGINT): Length of the file or directory path from root of volume.
allowedPathLen (LONGINT): Maximum supported path length.

fsm events

fsm.low events

fsm.low.memory

Severity

ERROR

Description

This message occurs when Fpolicy Service Manager (FSM) fails to send outage, alert, handshake, cancel or volume operation notification to the FPolicy server due to memory allocation error.

Corrective Action

Check the connection between ONTAP and FPolicy server. Slow connection may result in accumulation of notifications in FSM. Make sure that the FPolicy is monitoring file operation which are recommended by FPolicy server vendor. Also use vendor recommended filter for operation like close, read, write and open.

Syslog Message

Failed to allocate memory for %s notification.

Parameters

reqType (STRING): Type of the message.

gb events

gb.cfo events

gb.cfo.abort.raid.fm

Severity

ERROR

Description

This message occurs when a high-availability (HA) controller failover (CFO) giveback is canceled due to RAID activity on a partner aggregate.

Corrective Action

Reissue the "storage failover giveback" command to initiate giveback to the partner after the pending or in-progress operation on the partner volume or aggregate is complete. Use the "storage aggregate status -r" command to view the state of the aggregate. If a plex is offline, use the "storage aggregate plex online" command to bring the plex online. If unmirrored aggregates are not supported on this configuration, use the "storage aggregate mirror" command to mirror this aggregate.

Syslog Message

%s %s%s is %s; canceling giveback.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Current owner of the aggregate.
vol (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing CFO giveback.

gb.cfo.veto.asup.generalNopart

Severity

NOTICE

Description

This message occurs when AutoSupport vetoes a controller failover (CFO) giveback request because an AutoSupport message for the down partner node was not collected prior to the giveback request.

Corrective Action

Typically, an AutoSupport message for the partner node is collected shortly after takeover is complete. If the CFO giveback was attempted and vetoed within 20 minutes of the takeover, retry the operation later. If time does not permit waiting, use the 'cf giveback -f' command to force a giveback.

Syslog Message

AutoSupport vetoed giveback because an AutoSupport message for the down partner node was not yet collected.

Parameters

(None).

gb.cfo.veto.coredump.pardump

Severity

> NOTICE

Description

> This message occurs when the partner node is still dumping core, and cannot yet resume serving data. The giveback attempt has been canceled.

Corrective Action

> Either let the dumpcore operation finish, or use the "-override-vetoes true" parameter to force a giveback.

Syslog Message

> Giveback canceled because partner is still dumping core

Parameters

> (None).

gb.cfo.veto.coredump.parsave

Severity

> NOTICE

Description

> This message occurs when savecore is currently saving the partner coredump. This work will be lost if a giveback is done at this time, so the giveback has been canceled.

Corrective Action

> Either let the savecore operation finish, or use the "-override-vetoes true" parameter to force a giveback.

Syslog Message

> Giveback canceled because savecore is running. %d%% - %d of %d blocks saved

Parameters

> **percent** (INT): Percentage of core that has been saved
> **completed** (INT): Number of blocks that have been saved
> **total** (INT): Total number of blocks in the core

gb.cfo.veto.coredump.savinit

Severity

> NOTICE

Description

> This message occurs when savecore is getting ready to start saving the partner coredump. The giveback attempt has been canceled.

Corrective Action

> Either let the savecore operation finish, or use the "-override-vetoes true" parameter to force a giveback.

Syslog Message

Giveback canceled because savecore is initializing

Parameters

(None).

gb.cfo.veto.lmgr.nonCA.broke

Severity

NOTICE

Description

This message occurs when a giveback is forced that causes non-continuously available (non-CA) locks on the volume to be dropped. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in controller failover (CFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

(None).

Syslog Message

Dropped non-CA locks on volume %s%s%s%s on CFO aggregate %s due to forced giveback.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

gb.cfo.veto.lmgr.nonCA.locks

Severity

ERROR

Description

This message occurs when a giveback has started but cannot proceed because non-continuously available (non-CA) locks are present on the volume. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in controller failover (CFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

Based on how resilient they are to failures, applications must either gracefully close sessions over which non-CA locks are established or accept lock state disruption. To determine the open files that have these sessions established, run the 'vserver cifs session file show -hosting-aggregate "aggregate list" -continuously-available No' command. "aggregate list" is a list of aggregates that are sent home as a result of the giveback operation. If lock state disruption for all existing non-CA locks is acceptable, retry the giveback operation by using the '-override-vetoes true' option.

Could not complete giveback because of non-CA locks on volume %s%s%s%s CFO aggregate %s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

gb.cfo.veto.nvsave.fail

Severity

ERROR

Description

This message occurs when the system cannot perform a giveback due to WAFL® NVSave file replay activity, and must abort the giveback.

Corrective Action

Retry the giveback operation after completion of NVSave files replay. Replay completion is indicated by the EMS message 'wafl.nvsave.replaying.pass' or 'wafl.nvsave.replaying.fail'.

Syslog Message

%s %s%s%s%s has WAFL NVSave file replay activity underway; canceling giveback.

Parameters

type (STRING): Object type (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

gb.cfo.veto.repl

Severity

NOTICE

Description

This message occurs when a cluster failover(CFO) giveback is vetoed by a critical replication transfer (for example, volume move in the cutover phase).

Corrective Action

Either abort the replication transfer that is preventing the giveback from being completed, retry the 'storage failover giveback' command with the '-override-vetoes true' option, or wait for the transfer to finish.

Syslog Message

Could not complete giveback because a replication transfer with UUID %s is in progress.

Parameters

transferId (STRING): UUID of the SnapMirror® replication transfer that vetoed the giveback.

gb.cfo.veto.sanown.ReassignInProgress

Severity

ERROR

Description

This message occurs when a controller disallows a giveback attempt because the partner's disk ownership is being reassigned. Typically, ownership reassignment is done after a controller replacement.

Corrective Action

Reissue the giveback request after disk ownership assignment is completed.

Syslog Message

Giveback was vetoed because the disk ownership reassignment in progress on the partner cannot be interrupted.

Parameters

(None).

gb.cfo.veto.snap.fail

Severity

NOTICE

Description

This message occurs when the system cannot perform a giveback due to snapshot activity, and must abort the giveback.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s has snapshot activity underway; canceling giveback.

Parameters

type (STRING): Object type (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the the volume name itself is insufficient.

gb.cfo.veto.snap.warning

Severity

NOTICE

Description

This message occurs when the system detects snapshot activity during giveback.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s has snapshot activity underway.

Parameters

type (STRING): Object type (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the the volume name itself is insufficient.

gb.cfo.veto.storageDiskBrkn

Severity

ERROR

Description

This message occurs when a giveback is aborted because a failed disk is present.

Corrective Action

Remove all failed disks and retry the giveback.

Syslog Message

Failed disk %s should be removed before the giveback command is invoked.

Parameters

diskName (STRING): Name of the device.

gb.cfo.veto.storageDiskByp

Severity

ERROR

Description

This message occurs when a giveback is aborted because one or more bypassed disks are present.

Corrective Action

Remove all bypassed disks and retry the giveback.

Syslog Message

All bypassed disks should be removed before a giveback command is entered.

Parameters

(None).

gb.cfo.veto.storageDiskSanit

Severity

ERROR

Description

This message occurs when a giveback is aborted because disk sanitization is in progress.

Corrective Action

Retry the giveback after sanitization is completed.

Syslog Message

Disk sanitization is in the process of formatting a disk. This operation should not be interrupted by a giveback.

Parameters

(None).

gb.cfo.veto.vservermigrate

Severity

ERROR

Description

This message occurs when the vserver migrate cutover operation vetoes cfo aggregate giveback because vserver migration cannot be aborted during that time.

Corrective Action

Reissue the 'storage failover giveback' command to initiate giveback to the partner when the vserver migrate cutover operation is completed.

Syslog Message

Vserver migration in progress prevents giveback.

Parameters

(None).

gb.netra events

gb.netra.ca.check.failed

Severity

ERROR

Description

This message occurs during the migration of an aggregate as a part of storage failover (SFO) giveback, when the destination node cannot reach the object stores.

Corrective Action

Verify that your intercluster LIF is online and functional by using the 'network interface show' command. Also, check network connectivity to the object store server by using the 'ping' command over the destination node intercluster LIF. Additionally, verify that the configuration of your object store has not changed and that login and connectivity information is still accurate by using the 'aggregate object-store config show'

command. It is possible to override this error by specifying false for the "require-partner-waiting" parameter of the giveback command. For more information or assistance, contact NetApp technical support.

Syslog Message

Giveback of aggregate '%s' (uuid: %s) failed due to %s preventing object store access on the destination node.

Parameters

vol (STRING): Name of the aggregate.
aggr_uuid (STRING): UUID of the aggregate.
reason (STRING): Activity that is preventing the aggregate giveback operation.

gb.sfo events

gb.sfo.abort.raid.fm

Severity

ERROR

Description

This message occurs when a high-availability (HA) storage failover (SFO) giveback is canceled due to RAID activity on a partner aggregate.

Corrective Action

Reissue the "storage failover giveback" command to initiate giveback to the partner after the pending or in-progress operation on the partner volume or aggregate is complete. Use the "storage aggregate status -r" command to view the state of the aggregate. If a plex is offline, use the "storage aggregate plex online" command to bring the plex online. If unmirrored aggregates are not supported on this configuration, use the "storage aggregate mirror" command to mirror this aggregate.

Syslog Message

%s %s%s is %s; canceling giveback.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Current owner of the aggregate.
vol (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing SFO giveback.

gb.sfo.netra.ha.dskChkFailed

Severity

ERROR

Description

This message occurs when giveback of the partner's storage failover (SFO) aggregate fails because the high-availability (HA) partner cannot see all disks belonging to the aggregate.

Corrective Action

Use the "storage failover show -fields local-missing-disks, partner-missing-disks" command to rescan the disks and to determine the latest ownership. If the disk inventory mismatch is not resolved, check the

cabling for loose connections or a bad cable on the partner node.

Syslog Message

Giveback of aggregate %s failed because the partner cannot see all disks belonging to the aggregate.

Parameters

aggr (STRING): Name of the aggregate that was not given back.

gb.sfo.netra.raid.failed

Severity

ERROR

Description

This message occurs during migration of an aggregate as part of storage failover (SFO) giveback, when one of the aggregate checks on the destination node fails, including duplicate aggregate name or duplicate Universally Unique Identifier (UUID).

Corrective Action

1. If checks fail due to duplicate aggregate name or UUID, delete the duplicate aggregate created from previous "storage failover giveback" or "storage aggregate relocation" operations. Contact NetApp technical support for assistance with deletion of the unwanted duplicate aggregate.

Syslog Message

Aggregate '%s' (UUID = %s, type = %s, home_owner_id = %llu, dr_home_owner_id = %llu): RAID aggregate migration checks failed on destination node %s.

Parameters

vol (STRING): Name of the aggregate.
aggregate_uuid (STRING): UUID of the aggregate.
raid_type (STRING): RAID type of the volume.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
dr_home_owner_id (LONGINT): NVRAM system ID of the aggregate's disaster recovery (DR) home owner.
reason (STRING): Activity that is preventing the aggregate relocation or giveback operation.

gb.sfo.netra.wafl.mcc.veto

Severity

ERROR

Description

This message occurs during migration of an aggregate as part of storage failover (SFO) giveback, when one or more online left-behind disaster recovery(DR) aggregates are found on the destination node and the "node-object-limit" option is set to off.

Corrective Action

Check whether there exists any online left-behind DR aggregates on the destination node from a previous switchover operation. If such an aggregate exists, then perform the corrective actions specified in the earlier EMS messages for the left-behind aggregate to return it to its original owner, and then retry the operation. If you cannot perform the corrective action, then use the "override-vetoes" option in the "giveback" command to force the giveback.

Syslog Message

Aggregate '%s': One or more online left-behind DR aggregates were found on the destination node and the "node-object-limit" option is set to off.

Parameters

vol (STRING): Name of the aggregate.

gb.sfo.precmt.lmgr.resynabrt

Severity

NOTICE

Description

This message occurs during giveback, when automatic lock resynchronization with the node's high-availability (HA) partner for files on this aggregate was aborted.

Corrective Action

(None).

Syslog Message

Automatic lock resynchronization was aborted for aggregate %s on forced giveback.

Parameters

aggr (STRING): Name of the aggregate for which resynchronization was aborted.

gb.sfo.precmt.lmgr.resyncing

Severity

ERROR

Description

This message occurs during giveback, when automatic lock resynchronization with the node's high-availability (HA) partner is in progress for files on this aggregate.

Corrective Action

Retry the giveback after verifying that lock synchronization is complete using the 'debug locks auto-resync-status -aggregate <aggregate>' diagnostic privilege command. If lock state disruption for all CA locks on the aggregate is acceptable, retry the giveback with the '-override-vetoes true' option.

Syslog Message

Could not give back aggregate %s because automatic lock resynchronization was in progress.

Parameters

aggr (STRING): Name of the aggregate with locks not yet in sync.

gb.sfo.precmt.repl

Severity

NOTICE

Description

This message occurs when all replication transfers are aborted because of storage failover (SFO) giveback.

Corrective Action

(None).

Syslog Message

Replication transfers aborted due to SFO giveback.

Parameters

(None).

gb.sfo.precmt.vdom.lowMem

Severity

ERROR

Description

This message occurs when giveback of the partner's storage failover (SFO) aggregate fails due to the unavailability of Data ONTAP® memory on the source node.

Corrective Action

Free some memory and retry the giveback.

Syslog Message

Giveback of aggregate %s failed due to unavailability of Data ONTAP® memory on the source node.

Parameters

aggr (STRING): Name of the aggregate that was not given back.

gb.sfo.precmt.wafl.volconversion

Severity

ERROR

Description

This message occurs when an active volume conversion is running on one or more volumes on the source aggregate. Pre-commit is aborted.

Corrective Action

When volume conversion is complete, re-run the 'storage failover giveback' command.

Syslog Message

SFO giveback is blocked as Volume Conversion is in progress on one of the volumes on aggregate %s.

Parameters

aggregate_name (STRING): The name of the aggregate containing the volume on which conversion is in progress.

gb.sfo.veto.asup.generalNopart

Severity

NOTICE

Description

This message occurs when AutoSupport vetoes a storage failover (SFO) giveback (sendhome) request because an AutoSupport message for the down partner node was not collected prior to the giveback request.

Corrective Action

Typically, an AutoSupport message for the partner node is collected shortly after takeover is complete. If an SFO giveback was attempted and vetoed within 20 minutes of the takeover, retry the operation later. If time does not permit waiting, use the 'storage failover giveback -override-vetoes true' command to force a giveback.

Syslog Message

AutoSupport vetoed giveback because an AutoSupport message for the down partner node was not yet collected.

Parameters

(None).

gb.sfo.veto.dump

Severity

ERROR

Description

This message occurs when dump/restore is aborted during storage failover/ aggregate relocation.

Corrective Action

(None).

Syslog Message

Dump/restore operations were aborted because %s is in progress.

Parameters

arl_or_sendhome (STRING): Describes whether ARL or SFO

gb.sfo.veto.kmgr.keysmissing

Severity

ERROR

Description

This message occurs when a giveback of the partner's storage failover (SFO) aggregate fails due to the unavailability of volume encryption keys for the encrypted volumes of the aggregate on the partner node.

Corrective Action

Wait a few minutes, and then try the giveback of the partner's SFO aggregate again. If the problem persists, run the "security key-manager external restore" command for an external key manager, the "security key-

manager external azure restore" command for an AKV configuration, the "security key-manager external aws restore" command for an AWSKMS configuration, the "security key-manager external gcp restore" command for a GCPKMS configuration, the "security key-manager external ikp restore" command for an IKPKMS configuration, or the "security key-manager onboard sync" command for the Onboard Key Manager. These commands retrieve the encryption keys for the encrypted volumes of the aggregate from the key manager. After running the appropriate command, then try the giveback of the partner's SFO aggregate again.

Syslog Message

Giveback of aggregate "%s" failed due to the unavailability of the volume encryption keys for the encrypted volumes of the aggregate on partner node "%s". Details: %s.

Parameters

aggr (STRING): Name of the aggregate that was not given back.
node (STRING): Name of the node that is missing encryption keys.
details (STRING): Detailed reason for failure.

gb.sfo.veto.lmgr.nonCA.broke

Severity

NOTICE

Description

This message occurs when a giveback is forced that causes non-continuously available (non-CA) locks on the volume to be dropped. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in storage failover (SFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

(None).

Syslog Message

Dropped non-CA locks on volume %s%s%s%s on SFO aggregate %s due to forced giveback.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

gb.sfo.veto.lmgr.nonCA.locks

Severity

ERROR

Description

This message occurs when a giveback has started but cannot proceed because non-continuously available (non-CA) locks are present on the volume. CA locks are established by opens through CIFS CA shares for regular files on read-write volumes that reside in storage failover (SFO) aggregates. These locks are mirrored to the node's high-availability (HA) partner to support the nondisruptive property of CA shares. The

rest of the locks are classified as non-CA locks and are not mirrored to the node's HA partner.

Corrective Action

Based on how resilient they are to failures, applications must either gracefully close sessions over which non-CA locks are established or accept lock state disruption. To determine the open files that have these sessions established, run the 'vserver cifs session file show -hosting-aggregate "aggregate list" -continuously-available No' command. "aggregate list" is a list of aggregates that are sent home as a result of the giveback operation. If lock state disruption for all existing non-CA locks is acceptable, retry the giveback operation by using the '-override-vetoes true' option.

Syslog Message

Could not complete giveback because of non-CA locks on volume %s%s%s%s SFO aggregate %s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
aggrname (STRING): Aggregate name.

gb.sfo.veto.lmgr.recons.left

Severity

ERROR

Description

This message occurs when a storage failover giveback has started, but cannot proceed because reconstruction of client file locks from mirrored lock information is not yet complete.

Corrective Action

Retry the giveback after checking the status of reconstruction using the 'debug locks reconstruction show' diagnostic privilege command. If the locks reconstruction operation is not completed, restart the giveback and override the veto using the '-override-vetoes true' option.

Syslog Message

Could not perform giveback because lock reconstruction on node %s is in progress.

Parameters

node (STRING): Name of the node reconstructing locks.

gb.sfo.veto.lmgr.syncing

Severity

ERROR

Description

This message occurs when a storage failover giveback has started but cannot proceed because synchronization of client file locks ("locks sync") with the partner is not yet complete.

Corrective Action

Retry the giveback after verifying that lock synchronization is completed, by using the 'debug locks lock-sync show' diagnostic privilege command.

Could not perform giveback because locks sync from node %s to its partner node %s is in progress.

Parameters

node (STRING): Name of the node performing locks sync with its partner.
partner (STRING): Name of the partner node with which locks sync is being performed.

gb.sfo.veto.repl

Severity

NOTICE

Description

This message occurs when a storage failover(SFO) giveback is vetoed by a critical replication transfer (for example, volume move in the cutover phase).

Corrective Action

Either abort the replication transfer that is preventing the giveback from being completed, retry the 'storage failover giveback' command with the '-override-vetoes true' option, or wait for the transfer to finish.

Syslog Message

Could not complete giveback because a replication transfer with UUID %s involving the aggregate %s is in progress.

Parameters

transferId (STRING): UUID of the SnapMirror® replication transfer that vetoed the giveback.
aggr (STRING): Name of the aggregate.

gb.sfo.veto.snaprestore

Severity

ERROR

Description

This message occurs when the system cannot perform a giveback because a volume snaprestore operation is active. The giveback is aborted.

Corrective Action

Retry giveback after the snaprestore operation is finished.

Syslog Message

%s %s%s%s%s is running snaprestore. Canceling giveback.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

gb.sfo.veto.volmove

Severity

ERROR

Description

This message occurs when the volume move operation vetoes a giveback because volume move can not be aborted during that time.

Corrective Action

Reissue the 'storage failover giveback' command to initiate giveback to the partner when the volume move is completed. Or use the '-override-vetoes true' option to abort the volume move.

Syslog Message

Volume move in progress for volume %s with DSID %llu prevents giveback.

Parameters

vol_name (STRING): Name of the source or destination volume.
volume_dsid (LONGINT): Source or destination volume data set identifier (DSID).

gb.sfo.veto.vservermigrate

Severity

ERROR

Description

This message occurs when the vserver migrate cutover operation vetoes data aggregate giveback because vserver migration cannot be aborted during that time.

Corrective Action

Reissue the 'storage failover giveback' command to initiate giveback to the partner when the vserver migrate cutover operation is completed.

Syslog Message

Vserver migration in progress prevents giveback.

Parameters

(None).

gb.sfo.veto.wafl.volconversion

Severity

ERROR

Description

This message occurs when an active volume conversion against one or more of the volumes on the source aggregate vetoed giveback.

Corrective Action

When volume conversion is complete, re-run the 'storage failover giveback' command.

Syslog Message

SFO giveback is vetoed as Volume Conversion is in progress on one of the volumes on aggregate %s.

Parameters

aggregate_name (STRING): The name of the aggregate containing the volume on which conversion is in progress.

geom events

geom.ontap events

geom.ontap.orphan.removing

Severity

NOTICE

Description

This message occurs when the geometry layer (geom) detects a device to be detached from the system.

Corrective Action

(None).

Syslog Message

Removing unit %d type %d.

Parameters

unit (INT): Unit number.
disk_type (INT): Disk type.

gpo events

gpo.cap events

gpo.CAP.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) central access policy (CAP) settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied CAP settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.CAP.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) central access policy (CAP) settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply CAP settings to Vserver %s failed, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.frmwork events

gpo.frmwork.RSoPApplied

Severity

NOTICE

Description

This event occurs after the resultant set of Group Policy (GPO) is calculated and applied to the Replicated Database (RDB) successfully.

Corrective Action

(None).

Syslog Message

GPO policy applied into RDB successfully.

Parameters

vserver (STRING): Vserver name.

gpo.frmwork.secJobFailed

Severity

ERROR

Description

This message occurs when starting or restarting the GPO Security Apply job fails.

Corrective Action

Address the specific reason for the issue, and then start the job by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to start a GPO Security Apply job run for Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.frmwork.updateFailed

Severity

ERROR

Description

This message occurs when updating group policy object (GPO) tables fails.

Corrective Action

Address the specific reason for the issue, and then update the tables by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

GPO tables update failed for Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.frmwork.updateRSoPFailed

Severity

ERROR

Description

This message occurs when updating group policy object (GPO) RSoP (Resultant Set of Policy) settings fails.

Corrective Action

Address the specific reason for the issue, and then update the settings by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

GPO RSoP update failed for Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.job events

gpo.job.mainUpdateFailed

Severity

ERROR

Description

This message occurs when the Group Policy Object (GPO) Main Update job run fails. Consequently, the policies won't be applied to the CIFS server, requiring a rerun of the update job.

Corrective Action

Make sure Group Policy Object is enabled by running the "vserver cifs group-policy show -vserver <vserver-name>" command, CIFS admin state is up by running the "vserver cifs show -vserver <vserver-name>" and there are no connectivity issues with Active Directory by running "vserver cifs check -vserver <vserver-name>" command, and then run the job again by running the "vserver cifs group-policy update -force -reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

GPO Main Update job (%s) run failed for Vserver %s, reason: %s.

Parameters

jobid (STRING): GPO job ID.
vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.job.mainUpdateSuccess

Severity

INFORMATIONAL

Description

This message occurs when the GPO Main Update job run succeeds.

Corrective Action

(None).

Syslog Message

Successfully completed a GPO Main Update job (%s) run for Vserver %s.

Parameters

jobid (STRING): GPO job ID.
vserver (STRING): Vserver name.

gpo.job.outOfMemory

Severity

ERROR

Description

This event occurs when the system has not enough memory to perform the GPO (Group Policy Object) job.

Corrective Action

Ensure there is enough memory available to perform the GPO job.

Syslog Message

GPO job %s failure: Out of memory.

Parameters

jobid (STRING): The GPO job ID.

gpo.job.securityApplyFailed

Severity

ERROR

Description

This message occurs when the Group Policy Object (GPO) Security Apply job run fails. Consequently, the security policies are not applied to the CIFS server, requiring a rerun of the apply job.

Corrective Action

Make sure we are able to check the CIFS configuration by running the "vserver cifs show -vserver <vserver-name>" command and the "vserver cifs check -vserver <vserver-name>" command. Run the job again using the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

GPO Security Apply job (%s) run failed for Vserver %s, reason: %s.

Parameters

jobid (STRING): GPO job ID.
vserver (STRING): Storage virtual machine (SVM) name.

reason (STRING): Reason for the failure.

gpo.job.securityApplySuccess

Severity

INFORMATIONAL

Description

This message occurs when the GPO Security Apply job run succeeds.

Corrective Action

(None).

Syslog Message

Successfully completed a GPO Security Apply job (%s) run for Vserver %s.

Parameters

jobid (STRING): GPO job ID.
vserver (STRING): Vserver name.

gpo.reg events

gpo.reg.applied

Severity

INFORMATIONAL

Description

This message occurs when the group policy object (GPO) registry policy settings are applied.

Corrective Action

(None).

Syslog Message

Successfully applied GPO registry settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.reg.bCache.applied

Severity

INFORMATIONAL

Description

This message occurs when the group policy object (GPO) BranchCache settings are applied.

Corrective Action

(None).

Syslog Message

Successfully applied BranchCache settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.reg.bCache.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) registry BranchCache policy settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply BranchCache settings for Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.reg.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) registry policy settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply GPO registry settings for Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec events

gpo.sec.EvtAdt.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) event audit policy settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied event audit and log settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.sec.EvtAdt.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) event audit policy settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply event audit and log settings to Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.fsec.applied

Severity

INFORMATIONAL

Description

This message occurs when the group policy object (GPO) file security settings are applied.

Corrective Action

(None).

Syslog Message

Successfully applied file security settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.sec.fsec.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) file security setings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply file security settings to Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.fsec.notAppliedFor

Severity

NOTICE

Description

This message occurs when applying a group policy object (GPO) security descriptor to a given file fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply file security settings to path %s in Vserver %s, reason: %s.

Parameters

path (STRING): File and directory path to which a security descriptor is to be applied.
vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.kerb.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) Kerberos settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied Kerberos settings to Vserver %s.

Parameters

    vserver (STRING): Vserver name.

gpo.sec.kerb.notApplied

Severity

    ERROR

Description

    This message occurs when applying group policy object (GPO) Kerberos settings fails.

Corrective Action

    Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

    Failed to apply Kerberos settings to Vserver %s, reason: %s.

Parameters

    vserver (STRING): Vserver name.
    reason (STRING): Reason for the failure.

gpo.sec.privR.applied

Severity

    INFORMATIONAL

Description

    This message occurs when applying group policy object (GPO) privilege-rights settings succeeds.

Corrective Action

    (None).

Syslog Message

    Successfully applied privilege rights settings to Vserver %s.

Parameters

    vserver (STRING): Vserver name.

gpo.sec.privR.notApplied

Severity

    ERROR

Description

    This message occurs when applying group policy object (GPO) privilege-rights settings fails.

Corrective Action

    Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply privilege-rights settings to Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.privR.notAppliedFor

Severity

NOTICE

Description

This message occurs when applying group policy object (GPO) privilege-rights fails for a supported setting.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply privilege-rights %s setting to Vserver %s, reason: %s.

Parameters

setting (STRING): Name of the setting: Take ownership, Security privilege, or Bypass traverse.
vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.reg.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) security registry settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied security registry settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.sec.reg.notAppliedFor

Severity

ERROR

Description

This message occurs when applying a group policy object (GPO) security registry setting fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply security registry %s setting to Vserver %s, reason: %s.

Parameters

setting (STRING): Name of the setting: SMB signing.
vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.resAno.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) security restrict anonymous settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied restrict anonymous settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.sec.resAno.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) security restrict anonymous settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply restrict anonymous settings to Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.resGrp.applied

Severity

INFORMATIONAL

Description

This message occurs when applying group policy object (GPO) restricted-groups settings succeeds.

Corrective Action

(None).

Syslog Message

Successfully applied restricted group settings to Vserver %s.

Parameters

vserver (STRING): Vserver name.

gpo.sec.resGrp.notApplied

Severity

ERROR

Description

This message occurs when applying group policy object (GPO) restricted-groups settings fails.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply restricted-groups settings to Vserver %s, reason: %s.

Parameters

vserver (STRING): Vserver name.
reason (STRING): Reason for the failure.

gpo.sec.resGrp.notAppliedFor

Severity

NOTICE

Description

This message occurs when applying group policy object (GPO) restricted-groups settings fails for a given group.

Corrective Action

Address the specific reason for the issue, and then apply the settings again by entering the "vserver cifs group-policy update -force-reapply-all-settings true -vserver <vserver-name>" command.

Syslog Message

Failed to apply restricted-groups settings for group %s in Vserver %s, reason: %s.

Parameters

    group (STRING): Group name.
    vserver (STRING): Vserver name.
    reason (STRING): Reason for the failure.

gpo.security events

gpo.security.unrecogFileForm

Severity

    ERROR

Description

    This event occurs when the GptTmpl.inf file is not in UNICODE (16 bit)format.

Corrective Action

    Ensure the security file GptTmpl.inf is in UNICODE 16bit format.

Syslog Message

    Security file is not unicoded.

Parameters

    filename (STRING): The security filename.

gpo.security.unrecogTemplate

Severity

    ERROR

Description

    This event occurs when the system fails to recognize the security template.

Corrective Action

    Ensure the security file GptTmpl.inf has the correct header.

Syslog Message

    Unable to recognize the security template.

Parameters

    (None).

ha events

ha.aggrmigrduration events

ha.aggrMigrDuration

Severity

NOTICE

Description

This message occurs every 60 seconds during an aggregate migration operation. It indicates the current phase of the aggregate migration, the high-availability (HA) operation that triggered the aggregate migration, and the elapsed time since the start of the current phase of the aggregate migration.

Corrective Action

(None).

Syslog Message

As part of the current %s operation, the aggregate migration phase %s has been ongoing for %lld msecs. Aggregate undergoing migration: %s.

Parameters

aggr_migr_op_name (STRING): Name of the HA operation that triggered the aggregate migration.
aggr_migr_phase (STRING): Current phase of the aggregate migration.
elapsed_time (LONGINT): Elapsed time since the start of the current phase of the aggregate migration.
aggr_name (STRING): Name of the aggregate undergoing migration.

ha.bdfu events

ha.bdfu.notEnabledOnDest

Severity

INFORMATIONAL

Description

This message occurs during storage failover (SFO) giveback or aggregate relocation when the source node cannot reenable background disk firmware update (BDFU) on the destination node. BDFU will be reenabled automatically on the destination node after all the aggregates have been given back.

Corrective Action

(None).

Syslog Message

(None).

Parameters

nodename (STRING): Destination node.

ha.disasterbootinitiated events

ha.disasterBootInitiated

Severity

NOTICE

Description

This message occurs when an HA disaster recovery boot is initiated. Such a boot occurs when the HA partner of a failing node also experiences a failure, and one from which it cannot recover.

Corrective Action

(None).

Syslog Message

HA disaster recovery boot initiated.

Parameters

(None).

ha.fm events

ha.fm.platformTypeChanged

Severity

NOTICE

Description

This message occurs when the Failover Monitor (FM) platform type changes in response to changes in the cluster configuration.

Corrective Action

(None).

Syslog Message

FM platform type changed from %s to %s.

Parameters

from (STRING): Previous FM platform type.
to (STRING): New FM platform type.

ha.gb events

ha.gb.mbxAccessErr

Severity

ALERT

Description

This message occurs when a mailbox disk cannot be accessed prior to a giveback.

Corrective Action

Verify the mailbox disk physical locations and mailbox disk counts by using the "storage failover mailbox-disk show -node node-id" advanced command. If all mailbox disks are present for the indicated physical location, retry the "storage failover giveback" command or sf-send-home-initiate ZAPI. If none of the mailbox disks for the indicated physical location are shown, wait a few minutes, and then retry the show command to see whether all mailbox disks are present. If all mailbox disks are present, retry the "storage failover giveback" command or sf-send-home-initiate ZAPI. If some but not all mailbox disks are present for the indicated physical location, then set the "-override-vetoes" field to "true" for either the "storage failover giveback" command or sf-send-home-initiate ZAPI, and then retry the giveback.

Syslog Message

Problem accessing %s mailbox disks prior to giveback. Found %d disks, expected %d disks. Override vetoes option: %s; Internal error code: %d status: %d.

Parameters

physical_location (STRING): Identifies the physical location of the mailbox disks. Values are Local Node, Partner Node, Mediator, or a node name.
mailbox_disk_count (INT): Current count of mailbox disks having the physical location specified by the physical_location parameter.
expected_count (INT): Expected count of mailbox disks having the physical location specified by the physical_location parameter.
override_vetoes (STRING): Value of the "-override-vetoes" field in the "storage failover giveback" command or sf-send-home-initiate ZAPI.
error_code (INT): Disk I/O or other error code.
error_status (INT): Additional internal status related to the error code.

ha.gb.mbxCountMismatch

Severity

NOTICE

Description

This message occurs when a mailbox disk cannot be accessed prior to a giveback, but giveback is allowed to proceed because the "override-vetoes" field is set to "true" for the "storage failover giveback" command or the sf-send-home-initiate ZAPI.

Corrective Action

(None).

Syslog Message

Problem accessing %s mailbox disks during giveback. Found %d disks, expected %d disks. Override vetoes option: %s; Internal result code: %d status: %d"

Parameters

physical_location (STRING): Identifies the physical location of the mailbox disks. Values are Local Node, Partner Node, Mediator, or a node name.
mailbox_disk_count (INT): Current count of mailbox disks having the physical location specified by the physical_location parameter.
expected_count (INT): Expected count of mailbox disks having the physical location specified by the physical_location parameter.

override_vetoes (STRING): Value of the "-override-vetoes" field in the "storage failover giveback" command or sf-send-home-initiate ZAPI.
result_code (INT): Disk I/O or other result code.
result_status (INT): Additional internal status related to the result code.

ha.gb.mbxNotFound

Severity

ALERT

Description

This message occurs when a mailbox disk cannot be accessed prior to a giveback.

Corrective Action

Verify the mailbox disk physical locations and mailbox disk counts by using the "storage failover mailbox-disk show -node node-id" advanced command. If all mailbox disks are present, retry the "storage failover giveback" command or the sf-send-home-initiate ZAPI. If none of the mailbox disks for the indicated mailbox owner are shown, wait a few minutes, and then retry the show command to see whether all mailbox disks are present. If all mailbox disks are present, retry the "storage failover giveback" command or sf-send-home-initiate ZAPI. If some but not all mailbox disks are present for the indicated mailbox owner, verify whether all nodes in the cluster are healthy and accessible by using the "cluster show" command, and check whether disks are healthy by using the "disk show" command.

Syslog Message

Problem accessing %s mailbox disks prior to giveback. Found %d disks. Override vetoes option: %s; Internal error code: %d status: %d.

Parameters

mailbox_owner (STRING): Identifies the node in the high-availability (HA) pair that owns the missing mailbox disk.
mailbox_disk_count (INT): Number of mailbox disks found. These disks are owned by the node specified by the mailbox_owner parameter.
override_vetoes (STRING): Value of the "-override-vetoes" parameter passed to the "storage failover giveback" command or the sf-send-home-initiate ZAPI.
error_code (INT): Disk I/O or other error code.
error_status (INT): Additional internal status related to the error code.

ha.gettakoverlockstatus events

ha.getTakoverLockStatus

Severity

NOTICE

Description

This message occurs when the HA subsystem attempts to acquire takeover lock as part of the takeover operation.

Corrective Action

(None).

Syslog Message

Attempting to acquire takeover lock. Status: %s.

Parameters

status (STRING): Status of the attempt to acquire the lock.

ha.giveback events

ha.giveback.aggrOnlineFailed

Severity

INFORMATIONAL

Description

This message occurs when the RAID or WAFL® subsystem fails to bring online the aggregate or its containing volumes after giveback.

Corrective Action

Check the EMS logs for messages from the RAID and WAFL subsystems to determine the exact cause of the failure and corrective action.

Syslog Message

Bringing online of aggregate %s or its volumes failed after giveback with error %d.

Parameters

aggrName (STRING): Name of the aggregate that was given back.
error (INT): Error that occurred while bringing online the aggregate or its volumes after giveback.

ha.giveback.aggrOnlineTimeout

Severity

ERROR

Description

This message occurs when a node fails to bring online the aggregate and its containing volumes within the specified time after giveback.

Corrective Action

Use the "storage aggregate show" command to verify that the aggregate and its volumes are online.

Syslog Message

Node did not bring online the aggregate %s and its volumes after the giveback for %llu milliseconds.

Parameters

aggrUUID (STRING): UUID of the aggregate that was given back.
time (LONGINT): Timeout, in milliseconds, to bring online the aggregate and its volumes after the giveback.

ha.giveback.aggrPartnerTimeout

Severity

INFORMATIONAL

Description

This message occurs during a giveback operation, when a node does not receive notification from its high-availability (HA) partner within the specified time that the aggregate is online.

Corrective Action

Use the "storage aggregate show" command to verify that the aggregate and its volumes are online on the partner node.

Syslog Message

Node did not receive notification from its partner in %llu milliseconds that aggregate %s is online after the giveback.

Parameters

time (LONGINT): Timeout, in milliseconds, for notification from the partner node that an aggregate is online after giveback.
aggrName (STRING): Name of the aggregate that was given back.

ha.giveback.commWithPartnerFailed

Severity

ERROR

Description

This message occurs when the local node cannot communicate over the cluster network with the d-blade of its high-availability (HA) partner while giving back an aggregate.

Corrective Action

1. Verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local and the partner node are up. 3. If the preceding checks pass, then run the "storage failover giveback" command to initiate giveback. To force giveback, use the "storage failover giveback -require-partner-waiting false" command.

Syslog Message

Failed to communicate with the partner %s over the cluster network while giving back aggregate %s.

Parameters

partnerName (STRING): Name of the partner node.
aggrName (STRING): Name of the aggregate being given back.

ha.giveback.connectToPartnerFailed

Severity

ERROR

Description

This message occurs when the local node cannot connect over the cluster network to the d-blade of its high-availability (HA) partner while giving back an aggregate.

Corrective Action

1. Verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local node and the partner node are up. 3. If the preceding checks pass, then run the "storage failover giveback" command to initiate giveback. To force giveback, use the "storage failover giveback -require-partner-waiting false" command.

Syslog Message

Failed to connect with the partner node %s (d-blade ID: %s) over the cluster network while giving back aggregate %s.

Parameters

partnerName (STRING): Name of the partner node.
partnerDbladeid (STRING): D-blade ID of the partner node.
aggrName (STRING): Name of the aggregate being given back.

ha.giveback.emptyAggr

Severity

ERROR

Description

This message occurs when the local node does not find any disks in the aggregate being given back.

Corrective Action

1. Use the "storage disk show -aggregate aggrName" command to verify that the aggregate has disks. 2. If the preceding check passes, then run the "storage failover giveback" command to initiate giveback.

Syslog Message

Aggregate %s does not have any disks.

Parameters

aggrName (STRING): Name of the aggregate being given back.

ha.giveback.sysCommit

Severity

INFORMATIONAL

Description

This message occurs during the commit phase of the giveback of an aggregate to indicate the time taken by the specified subsystem to commit.

Corrective Action

(None).

Syslog Message

Subsystem %s took %llu msecs to commit giveback of aggregate '%s'.

Parameters

subsys (STRING): Name of the subsystem performing the commit.
time (LONGINT): Time taken by the subsystem to commit the giveback.

aggr (STRING): Name of the aggregate being given back.

ha.giveback.sysVetoChk

Severity

INFORMATIONAL

Description

This message occurs during the veto phase of the giveback of an aggregate to indicate the time taken by the specified subsystem to check whether giveback should be aborted.

Corrective Action

(None).

Syslog Message

Subsystem %s took %llu msecs to check whether to veto giveback of aggregate '%s'.

Parameters

subsys (STRING): Name of the subsystem performing the veto check.
time (LONGINT): Time taken by the subsystem to check whether giveback should be aborted.
aggr (STRING): Name of the aggregate being given back.

ha.giveback.totalCommit

Severity

INFORMATIONAL

Description

This message occurs during the giveback of an aggregate to indicate the total time taken by the commit phase.

Corrective Action

(None).

Syslog Message

Total time taken to commit the giveback of aggregate '%s' was %llu msecs.

Parameters

aggr (STRING): Name of the aggregate being given back.
time (LONGINT): Total time taken to commit the giveback.

ha.giveback.usingHAInterconnect

Severity

INFORMATIONAL

Description

This message occurs when the local node uses the high-availability (HA) interconnect instead of the preferred cluster network to communicate with its HA partner during giveback.

Corrective Action

(None).

Syslog Message

Local node used the HA interconnect to communicate with the partner during giveback of aggregate %s.

Parameters

aggrName (STRING): Name of the aggregate being given back.

ha.localnodeshutdown events

ha.localNodeShutDown

Severity

NOTICE

Description

This message occurs when shutdown of the local node is initiated.

Corrective Action

(None).

Syslog Message

Shutdown of the local node has been initiated with inhibit_takeover set to %s.

Parameters

inhibit_takeover (STRING): Specifies whether takeover by the partner node is inhibited on shutdown of the local node.

ha.mbxresvreleasedelay events

ha.mbxResvReleaseDelay

Severity

NOTICE

Description

This message occurs when the takeover node cannot release a disk reservation for a mailbox disk in preparation for a giveback event. The mailbox reservation release will be automatically retried after a few minutes.

Corrective Action

The mailbox reservation release will be automatically retried after a few minutes. If this problem persists and "storage failover giveback" is not run automatically or cannot be run manually, release the mailbox disks reservations manually using maintenance mode.

Syslog Message

Problem releasing reservation for mailbox disk attached to node with System ID %d. Disk name %s, disk owner %s, disk UUID: %s, status: %d.

Parameters

physical_location (LONGINT): System ID of the node directly attached to the mailbox disk on which the reservation release failure occurred.
disk_name (STRING): Name of the disk for which the reservation release failed.
mbx_disk_owner (STRING): Owner of the mailbox disk where the reservation release failed. Values are Local Node or Partner Node.
disk_uid (STRING): Unique identifier of the disk where the reservation release failed.
status (INT): Reservation release status code.

ha.netpartition events

ha.netPartition

Severity

NOTICE

Description

This message occurs when a Data ONTAP® subsystem detects an error potentially due to network partitioning, but cannot take over the partner node or allow the partner to take over because both takeover-of-partner and takeover-by-partner are both disabled. Network partitioning is indicated by concurrent errors on more than one of a node's interfaces, if a halt, reboot, takeover or similar action affecting connectivity is not already in progress.

Corrective Action

(None).

Syslog Message

Network partition error. Internal error code %d; status: 0x%x; internal request ID: %d.

Parameters

error_code (INT): Internal error code.
error_status (INTHEX): Additional internal status bits related to error_code.
req_id (INT): Internal request ID.
duration (LONGINT): Elapsed time in msecs spent resolving the reported error.

ha.netPartition.reboot

Severity

NOTICE

Description

This message occurs when a Data ONTAP® subsystem detects an error potentially due to network partitioning, and reboots the local node due to the network partition. The reboot occurs only if `takeover-by-partner is enabled on the local node. Network partitioning is indicated by concurrent errors on more than one of a node's interfaces, if a halt, reboot, takeover or similar action affecting connectivity is not already in progress.

Corrective Action

(None).

Syslog Message

Rebooting the local node due to a network partition error. Internal error code %d; status: 0x%x; internal request ID: %d.

Parameters

error_code (INT): Internal error code.
error_status (INTHEX): Additional internal status bits related to error_code.
req_id (INT): Internal request ID.
duration (LONGINT): Elapsed time in msecs spent resolving the reported error.

ha.netPartition.takeover

Severity

NOTICE

Description

This message occurs when a Data ONTAP® subsystem detects an error potentially due to network partitioning, and initiates a takeover of the partner node due to the partition. Network partitioning is indicated by concurrent errors on more than one of a node's interfaces, if a halt, reboot, takeover or similar action affecting connectivity is not already in progress.

Corrective Action

(None).

Syslog Message

Taking over the partner node due to a network partition error. Internal error code %d; status: 0x%x; internal request ID: %d.

Parameters

error_code (INT): Internal error code.
error_status (INTHEX): Additional internal status bits related to error_code.
req_id (INT): Internal request ID.
duration (LONGINT): Elapsed time in msecs spent resolving the reported error.

ha.netparttodisabled events

ha.netPartToDisabled

Severity

NOTICE

Description

This message occurs when takeovers due to network partitioning are disabled because of the number of previous, consecutive, network-partiion takeovers that occurred within a preceding detection period. Subsequent takeovers due to network partitioning are automatically reenabled after the disable time limit is reached or after a takeover is initiated for a different reason.

Corrective Action

(None).

Syslog Message

Network partitioning takeovers are disabled due to %d network-related takeovers in the preceding %d minutes. Takeovers by local node %d; partner node %d. Takeovers will be be re-enabled in %d minutes or when another type of takeover occurs.

Parameters

takeovers_initiated (INT): Consecutive takeovers initiated from either node within the detection period that were due to network partitioning.

detection_period (INT): Number of minutes over which the network partition takeover attempts were monitored and counted.

local_node_initiated (INT): Number of takeovers due to network partitioning occurring within the detection period that were initiated by the local node. This number is included in the takeover_initiated number.

partner_node_initiated (INT): Number of takeovers due to network partitioning occurring within the detection period that were initiated by the partner node. This number is included in the takeover_initiated number.

minutes_until_reenable (INT): Minutes until takeover due to network partitioning is reenabled.

ha.netra events

ha.netra.dskChkNoContDsk

Severity

ERROR

Description

This message occurs during an aggregate migration, when the destination node either cannot determine whether at least one disk in the aggregate is a disk partition, or the associated container disk is not visible to the destination node. The aggregate migration operation is aborted.

Corrective Action

Use the (privilege: advanced) "storage disk refresh-ownership" command to rescan the disks and update ownership information. After refreshing the disk ownership info, use the "storage show disk" command to view the ownership of all disks, and the "storage show disk -container-type shared" command to view container-disk ownership. If any disks are incorrectly owned, update the disk ownership information. If the problem persists, use the "storage failover show -fields local-missing-disks, partner-missing-disks" command to check whether there are any disks that are not visible to a subset of the nodes. Use the "storage failover show" command to check whether the high-availability (HA) partner's information is known. If HA partner information is missing, verify the HA Interconnect between both nodes is installed and functioning correctly. If not, fix the HA Interconnect cabling issues to resolve the connectivity problems. Use the "storage disk show" command to check whether there are any failed disks. If failed disks are present, remove or replace them. If there are no failed disks, check the cabling for loose connections or a bad cable on the node where the disk is not visible. If the problem persists, contact NetApp technical support.

Syslog Message

Disk with UUID %s is not visible to node %s, which is the destination of an aggregate migration operation. As a result, the aggregate migration was aborted. Check the event log of the destination node to determine the name of the aggregate whose migration was aborted.

Parameters

disk_uuid (STRING): Universal unique identifier (UUID) of the disk that is not visible to the destination node.

node_name (STRING): Name of the destination node.

ha.nomediatormbx events

ha.noMediatorMbx

Severity

ERROR

Description

This message occurs when the non-local mailbox disks of a node are not accessible. The system will not be able to perform a takeover and can potentially prevent a takeover by the partner as well.

Corrective Action

Use the "storage failover show -fields local-mailbox-disks" command to verify that all nodes in the cluster can access their respective mailbox disks. Use the (privilege: advanced) "storage iscsi-initiator show" command to verify that all iSCSI connections are up and healthy. If not healthy, use the "storage iscsi-initiator add-target" and "storage iscsi-initiator connect" commands to add and connect any missing or misconnected iSCSI targets.

Syslog Message

Takeover not possible because non-local mailbox disks owned by node "%s" cannot be accessed.

Parameters

mailbox_owner (STRING): Node that owns the non-local mailbox disks that could not be accessed.

ha.noprogrammaticto events

ha.noProgrammaticTO

Severity

NOTICE

Description

This message occurs when a takeover is initiated programmatically by Data ONTAP® and the takeover request fails because giveback or aggregate relocation cleanup is still in progress.

Corrective Action

(None).

Syslog Message

Failover monitor: Programmatic takeover failed due to giveback or aggregate relocation post-processing cleanup not yet complete.

Parameters

(None).

ha.panicinfonotsent events

ha.panicInfoNotSent

Severity

NOTICE

Description

This message occurs when a node cannot send panic information to its high-availability (HA) partner over the HA interconnect. The HA partner might still initiate takeover if it detects that the partner is down by other means, and takeover of the panicking node is allowed.

Corrective Action

(None).

Syslog Message

Local node cannot send a panic information message to the HA partner over the HA interconnect due to error: %s. Partner name: %s. Partner system ID: %llu.

Parameters

error (STRING): Reason the node cannot send panic information to its HA partner.
partner_name (STRING): Name of the HA partner.
partner_systemid (LONGINT): System ID of the HA partner.

ha.panicinfonotsentic events

ha.panicInfoNotSentIC

Severity

NOTICE

Description

This message occurs when a node cannot send panic information to its high-availability (HA) partner over the HA interconnect due to an HA interconnect error. The HA partner might still initiate takeover if it detects that the partner is down by other means, and takeover of the panicking node is allowed.

Corrective Action

(None).

Syslog Message

Local node cannot send a panic information message to its HA partner due to an HA interconnect error: %s (error code: %d). Partner name: %s. Partner system ID: %llu.

Parameters

error (STRING): Reason the node cannot send panic information to its HA partner.
error_code (INT): Specific error generated by the HA Interconnect. Example error codes: 1 (ERR_ICDOWN): Interconnect is down 4 (ERR_SYSERROR): System error 5 (ERR_ICERROR): Interconnect error 6 (ERR_OUTOFMEMORY): Out of memory 11 (ERR_SENDSIZE): Send size is too large 19 (ERR_CKSUM): Checksum error
partner_name (STRING): Name of the HA partner.
partner_systemid (LONGINT): System ID of the HA partner.

ha.panicinforcvbadvrsn events

ha.panicInfoRcvBadVrsn

Severity

NOTICE

Description

This message occurs when the version of the panic information received from the high-availability (HA) partner is not equal to the expected version. The receiving node will discard this panic information message. A takeover might still occur if the local node detects that its HA partner is down by other means, and takeover of the panicking node is allowed.

Corrective Action

(None).

Syslog Message

Panic information message received from the HA partner is the wrong version. Expected version: %u. Received version: %u. Partner name: %s. Partner system ID: %llu.

Parameters

expected_version (LONGINT): Expected version of the panic information.
received_version (LONGINT): Received version of the panic information.
partner_name (STRING): Name of the HA partner.
partner_systemid (LONGINT): System ID of the HA partner.

ha.panicinfosent events

ha.panicInfoSent

Severity

NOTICE

Description

This message occurs when a node successfully sends panic information to its high-availability (HA) partner over the HA interconnect.

Corrective Action

(None).

Syslog Message

Node successfully sent a panic information message to its HA partner. Partner name: %s. Partner system ID: %llu.

Parameters

local_hostname (STRING): Name of the node that panicked and sent panic information over the HA interconnect.
local_systemid (LONGINT): System ID of the node that panicked and sent panic information over the HA interconnect.

ha.panicinfosznotok events

ha.panicInfoSzNotOk

Severity

NOTICE

Description

This message occurs when the size of the panic information received from the high-availability (HA) partner is not equal to the expected panic information size. The receiving node will discard this panic information message. A takeover might still occur if the local node detects that its HA partner is down by other means, and takeover of the panicking node is allowed.

Corrective Action

(None).

Syslog Message

Panic information message received from the HA partner is the wrong size. Expected size: %u. Received size: %u. Partner name: %s. Partner system ID: %llu.

Parameters

expected_size (LONGINT): Expected size of the panic information.
received_size (LONGINT): Received size of the panic information.
partner_name (STRING): Name of the HA partner.
partner_systemid (LONGINT): System ID of the HA partner.

ha.partner events

ha.partner.discovered

Severity

NOTICE

Description

This message occurs when a controller in an High Availability Configuration discovers its HA partner.

Corrective Action

(None).

Syslog Message

Discovered HA partner with system ID %d, port %d.

Parameters

sysid (INT): System ID of the HA partner.
port (INT): Port number of the HA partner.

ha.resvconflicthalt events

ha.resvConflictHalt

Severity

NOTICE

Description

This message occurs when the node halts itself after it finds disks with reservation conflicts. Reservations are placed on disks as part of a node taking over its partner. This disk reservation conflict is due to this node being taken over by its partner.

Corrective Action

(None).

Syslog Message

A disk reservation conflict was detected on disk %s at %-20s. Typically, this only occurs when the node was taken over by its partner.

Parameters

disk_name (STRING): Name of the disk.
time (STRING): Time when the disk reservation was detected.
last_update (INT): Time passed since last rescan, in milliseconds.

ha.resvmediatormbxstatus events

ha.ResvMediatorMbxStatus

Severity

NOTICE

Description

This message occurs when the local node attempts to reserve a mailbox disk while trying to acquire the takeover lock as part of the takeover operation.

Corrective Action

(None).

Syslog Message

Attempting to reserve mailbox disk %s (UUID: %s) on node "%s" as part of takeover lock. Status: %d.

Parameters

mailbox_disk_name (STRING): Name of the disk being reserved.
mailbox_disk_uid (STRING): UUID of the mailbox disk on which a reservation was attempted.
mailbox_host (STRING): Name of the node that owns the mailbox disk.
mailbox_op_status (INT): Result of the disk reservation attempt on the mailbox disk.

ha.takeover events

ha.takeover.bypOptimChange

Severity

INFORMATIONAL

Description

This message occurs when the value of the 'bypass-takeover-optimization' parameter of the "storage failover" command is changed on a node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

node_name (STRING): Name of the node.
new_value (STRING): New value of the 'bypass-takeover-optimization' parameter.

ha.takeover.checkEnd

Severity

ALERT

Description

This message occurs when a node is simulating a takeover. This marks the end of a simulated takeover on the local node.

Corrective Action

(None).

Syslog Message

This node is testing the takeover workflow. This test is a simulation only. The simulation has ended on the local node.

Parameters

(None).

ha.takeover.checkError

Severity

ALERT

Description

This message occurs when a takeover with the check-only flag detects an error that would prevent takeover.

Corrective Action

Use the "storage failover check-takeover" command to identify the failures that occured along the takeover path. Perform corrective action based on error information shown by the command.

Syslog Message

This node is testing the takeover workflow. This test is a simulation only. The simulation has encountered

and error that would disrupt takeover.

Parameters

(None).

ha.takeover.checkStart

Severity

ALERT

Description

This message occurs when a node is simulating a takeover. This marks the start of a simulated takeover on the local node.

Corrective Action

(None).

Syslog Message

This node is testing the takeover workflow. This test is a simulation only. The simulation has started on the local node.

Parameters

(None).

ha.takeover.stateDuration

Severity

NOTICE

Description

This message occurs when a node has been in the takeover state for a set time period of 1 hour and every hour thereafter the node continues to be in that state.

Corrective Action

(None).

Syslog Message

Node (%s) in takeover for %d days and %d hours.

Parameters

host (STRING): Name of the host
days_in_TO (INT): Number of days in takeover
hours_in_TO (INT): Number of hours in takeover

ha.takeoverimpdegraded events

ha.takeoverImpDegraded

Severity

ALERT

Description

This message occurs when the partner node is down and it is currently impossible to perform a takeover because the partner mailbox disks are not available.

Corrective Action

Check connectivity to the partner disks. Identify the mailbox disks on the partner node by using the "storage failover show -instance" command. Verify that this node has connectivity to the partner mailbox disks by using the "storage disk show -instance" command. Resolve any connectivity issues by fixing cabling or shelf issues.

Syslog Message

Takeover of the partner node is impossible due to lack of connectivity to the partner mailbox disks.

Parameters

(None).

ha.takeoverimphotshelf events

ha.takeoverImpHotShelf

Severity

EMERGENCY

Description

This message occurs when the partner node is down and it is currently impossible to perform a takeover due to disk shelves that are overheating.

Corrective Action

Check cooling for the disk shelves.

Syslog Message

Takeover of the partner node is impossible due to disk shelves that are overheating.

Parameters

(None).

ha.takeoverimpic events

ha.takeoverImpIC

Severity

ALERT

Description

This message occurs when the partner node is down and the local node cannot perform a takeover because of interconnect errors.

Corrective Action

Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if

applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. When one link is down on platforms with two available links, HA link redundancy is lost. However, HA services are still working and enabled on the secondary link.

Syslog Message

Takeover of the partner node is not possible due to interconnect errors.

Parameters

(None).

ha.takeoverimplowmem events

ha.takeoverImpLowMem

Severity

ERROR

Description

This message occurs when the partner node is down; however, due to this node being low on memory, it is currently impossible to perform a takeover.

Corrective Action

Contact NetApp technical support.

Syslog Message

Takeover of the partner node is impossible due to a low memory situation.

Parameters

(None).

ha.takeoverimpnotdef events

ha.takeoverImpNotDef

Severity

ERROR

Description

This message occurs when the partner node is down and it is currently impossible to perform a takeover.

Corrective Action

Check the reason string and repair the problem reported.

Syslog Message

Takeover of the partner node is impossible due to reason %s.

Parameters

reason (STRING): Reason the takeover is currently impossible.

ha.takeoverimpunsync events

ha.takeoverImpUnsync

Severity

    ALERT

Description

    This message occurs when the partner node is down and it is currently impossible to perform a takeover because the takeover node does not have partner NVRAM data.

Corrective Action

    Verify that the interconnect cables are correctly connected between the nodes. Boot the partner node to reestablish the interconnect if it was shut down. If necessary, force a takeover with the '[run node] cf forcetakeover' command. This action might cause data loss if there is NVRAM data on the partner node not written to disk.

Syslog Message

    Takeover of the partner node is impossible due to lack of partner NVRAM data.

Parameters

    (None).

ha.takeoverimpversion events

ha.takeoverImpVersion

Severity

    ALERT

Description

    This message occurs when the partner node is down; however, due to a version mismatch, it is currently impossible to perform a takeover.

Corrective Action

    Upgrade the downrev node, so that both nodes are on the same release of Data ONTAP®. If a revert is being performed, downgrade the uprev node to the same release as the partner node.

Syslog Message

    Takeover of the partner node is impossible due to version mismatch.

Parameters

    (None).

ha.tkover events

ha.tkover.waitARLabort

Severity

INFORMATIONAL

Description

This message occurs when a pending takeover is waiting for an in-progress aggregate relocation (ARL) operation to complete or abort before proceeding with the takeover.

Corrective Action

(None).

Syslog Message

Node %s has been waiting for an ongoing ARL for %d seconds. It will proceed with takeover when the ARL operation has been completed or aborted.

Parameters

node_name (STRING): Name of the node doing the takeover.
wait_time (LONGINT): Amount of time spent waiting for the ongoing ARL operation to be completed or aborted.

ha.tkover.waitGBabort

Severity

INFORMATIONAL

Description

This message occurs when a pending takeover is waiting for an in-progress SFO giveback operation to complete or abort before proceeding with the takeover.

Corrective Action

(None).

Syslog Message

Node %s has been waiting for an ongoing SFO giveback for %d seconds. It will proceed with takeover when the SFO giveback operation has been completed or aborted.

Parameters

node_name (STRING): Name of the node doing the takeover.
wait_time (LONGINT): Amount of time spent waiting for the ongoing SFO giveback operation to be completed or aborted.

ha.tkoverabortednomediatormbx events

ha.tkoverAbortedNoMediatorMbx

Severity

NOTICE

Description

This message occurs when a planned failover is aborted because the mediator mailbox disks were not detected.

Corrective Action

Run the "storage failover show -fields local-mailbox-disks partner-mailbox-disks" and "storage failover show -instance" commands to check whether the mediator mailbox disks are missing. If the mediator mailbox disks are not present, rescan the disks on both nodes in the HA pair to determine the latest ownership by using the "storage disk refresh-ownership" command. If the rescan does not work, contact NetApp technical support.

Syslog Message

(None).

Parameters

(None).

ha.toafterrcvpanicinfo events

ha.toAfterRcvPanicInfo

Severity

NOTICE

Description

This message occurs when the local node initiates a takeover of its high-availability (HA) partner after detecting a panic of the HA partner node.

Corrective Action

(None).

Syslog Message

Local node initiated takeover after receiving a panic information message from its HA partner. Partner name: %s. Partner system ID: %llu.

Parameters

hostname (STRING): Host name of the node being taken over.
systemid (LONGINT): System ID of the node being taken over.

ha.tp events

ha.tp.testPointHit

Severity

NOTICE

Description

This message occurs when the testpoint is encountered or hit.

Corrective Action

(None).

Syslog Message

Testpoint hit: '%s' [%s, %s], [%s:%d], count %d ⇒ '%s'.

Parameters

message (STRING): Test message.
tpModuleName (STRING): Testpoint module name.
tpId (STRING): ID of the testpoint within the module.
fileName (STRING): File name.
lineNo (INT): Line number.
tpCount (INT): Number of times the testpoint triggers before being disabled.
tpType (STRING): Type of testpoint.

hamsg events

hamsg.diskcheckresp events

hamsg.diskCheckResp

Severity

NOTICE

Description

This message occurs when a node receives a disk inventory check response from its high-availability (HA) partner.

Corrective Action

(None).

Syslog Message

The local node has received a disk inventory check response (%d) from its HA partner.

Parameters

response (INT): The disk inventory check response received from the HA partner.

hamsg.dskchkpopulateerr events

hamsg.dskChkPopulateErr

Severity

ERROR

Description

This message occurs when a disk inventory check cannot be sent to the local node's high-availability (HA) partner because the disk check request could not be correctly constructed.

Corrective Action

Retry the operation. If the problem persists, use the "storage failover show -fields local-missing-disks, partner-missing-disks" command to rescan the disks and to determine the latest ownership. If the disk inventory mismatch is not resolved, check the cabling for either loose connections or for a bad cable on the partner node.

Syslog Message

A disk inventory check cannot be sent to the local node's HA partner. Failure reason: %s.

Parameters

failure_reason (STRING): The reason that the disk inventory check request could not be properly constructed.

haosc events

haosc.config events

haosc.config.unknown.cf

Severity

ALERT

Description

This message occurs when the chassis and controller field-replaceable unit programmable read-only memories (FRU PROMs) have inconsistent data.

Corrective Action

Boot into Maintenance mode and run the 'ha-config modify' command to set the controller and chassis configuration to stand-alone or HA, as appropriate. Exercise extreme caution. Setting the wrong configuration might lead to data loss. For ASA r2, set the configuration to HA.

Syslog Message

Cannot determine whether configuration should be stand-alone or HA. Chassis is in %s configuration, and controller is in %s configuration.

Parameters

cha_config (STRING): Chassis FRU PROM HA configuration string.
cont_config (STRING): Controller FRU PROM HA configuration string.

haosc.config.unknown.ls

Severity

ALERT

Description

This message occurs when the chassis and controller field-replaceable unit programmable read-only memory (FRU PROM) configurations conflict with the HA mode.

Corrective Action

Boot into Maintenance mode and run the 'ha-config modify' command to set the controller and chassis configuration to stand-alone or HA, as appropriate. Setting the wrong configuration might lead to data loss. For ASA r2, set the configuration to HA. If you need assistance, contact NetApp technical support.

Syslog Message

Cannot determine whether the configuration should be stand-alone or HA. Chassis is in %s configuration, controller is in %s configuration, and the HA mode is %s.

Parameters

cha_config (STRING): Chassis FRU PROM HA configuration string.
cont_config (STRING): Controller FRU PROM HA configuration string.
mode (STRING): HA mode string.

haosc.config.unknown.nv

Severity

ALERT

Description

This message occurs when the chassis and controller field-replaceable unit programmable read-only memories (FRU PROMs) have factory default configurations and the nonvolatile memory is dirty.

Corrective Action

Boot into Maintenance mode and run the 'ha-config modify' command to set the controller and chassis configuration to stand-alone or HA, as appropriate. Setting the wrong configuration might lead to data loss. For ASA r2, set the configuration to HA. If you need assistance, contact NetApp technical support.

Syslog Message

Cannot determine whether configuration should be stand-alone or HA. Chassis is in %s configuration, controller is in %s configuration, and the nonvolatile memory is dirty.

Parameters

cha_config (STRING): Chassis FRU PROM HA configuration string.
cont_config (STRING): Controller FRU PROM HA configuration string.

haosc.fru events

haosc.fru.op.failed

Severity

ALERT

Description

This message occurs when the chassis or controller field-replaceable unit programmable read-only memory (FRU PROM) read/write fails.

Corrective Action

Replace the system chassis or controller, and contact NetApp technical support for assistance.

Syslog Message

%s FRU PROM %s operation failed.

Parameters

fru (STRING): Chassis/controller string.
op (STRING): Read/write operation string.

haosc.invalid events

haosc.invalid.config

Severity

EMERGENCY

Description

This message occurs when the chassis or controller field-replaceable unit programmable read-only memory (FRU PROM) returns an invalid configuration.

Corrective Action

Boot into Maintenance mode and run the 'ha-config modify' command to set the controller and chassis configuration to stand-alone or HA, as appropriate. Setting the wrong configuration might lead to data loss. For ASA r2, set the configuration to HA. If you need assistance, contact NetApp technical support.

Syslog Message

%s FRU PROM returns an invalid configuration.

Parameters

fru (STRING): Chassis/controller string.

haosc.sa events

haosc.sa.config

Severity

ERROR

Description

This message occurs when nonvolatile memory on a stand-alone system is configured for a high-availability system. Only half of the available nonvolatile memory will be used and system performance will be affected.

Corrective Action

Reboot the system to use all of the nonvolatile memory.

Syslog Message

Only half of the available nonvolatile memory is in use. This will affect system performance.

Parameters

(None).

hashd events

hashd.maxstore events

hashd.maxstore.oversize

Severity

NOTICE

Description

This message occurs when the size of hashes in the hash store is greater than the maximum size configured.

Corrective Action

If the hash files are not being retained for a long enough duration, consider resizing the maximum size of the hash store by issuing the 'vserver cifs branchcache modify -hash-store-max-size' command.

Syslog Message

Size of the hashes in the hash store exceeded maximum size configured for Vserver %s.%s

Parameters

vserver_name (STRING): Name of the Vserver where the problem is occuring.
oldestKept_timestamp (STRING): Timestamp of the oldest kept hash file.

hm events

hm.alert events

hm.alert.cleared

Severity

NOTICE

Description

This message occurs when a system health monitor alert is successfully cleared. Because health monitors evaluate the conditions dynamically, they might determine that the alerting condition is no longer valid. The alert is then removed from the system and this message is generated.

Corrective Action

(None).

Syslog Message

%s cleared by monitor %s

Parameters

detailed_info (STRING): Specific information for the deleted alert.
monitor (STRING): Health monitor hm_type value for this alert.
alert_id (STRING): Alert ID for the alert.
alerting_resource (STRING): Alert resource related to this alert.

hm.alert.raised

Severity

ALERT

Description

This message occurs when a system health monitor alert is detected. Based on predefined policies, alerts are created dynamically as and when conditions are evaluated. The alert is then populated with the actual names of the resources causing it.

Corrective Action

Run the "system health alert show" command to see the alert that was created with this event. Follow the suggested actions listed in the "Corrective Actions" field of the alert.

Syslog Message

%s raised by monitor %s

Parameters

detailed_info (STRING): Specific information for the created alert.
monitor (STRING): Health monitor hm_type value for this alert.
alert_id (STRING): Alert ID for the alert.
alerting_resource (STRING): Alert resource related to this alert.
probable_cause_description (STRING): Description of what could have caused the alert.
alert_corrective_action (STRING): Instructions to correct the alerting condition.

possible_effect (STRING): Possible effect on the system if the alert is not addressed.
additional_info (STRING): Additional information related to the alert.
tags (STRING): Tags to categorize the alert.
acknowledge (INT): True indicates the alert has been acknowledged.
acknowledger (STRING): Text describing the user that acknowledged the alert.
suppress (INT): True indicated the alert has been suppressed.
suppressor (STRING): Text describing the user that suppressed the alert.
asup_enable (INT): True indicates that this alert will trigger an AutoSupport® message.

host events

host.app events

host.app.component.error

Severity

ERROR

Description

This message occurs when a host encounters an error specific to an application component.

Corrective Action

For more information or assistance, contact NetApp technical support.

Syslog Message

Application component %s (UUID: %s) belonging to application %s (UUID: %s) on host %s running %s reported error %d: %s.

Parameters

app_name (STRING): Name of the application.
app_uuid (STRING): UUID of the application.
component_name (STRING): Name of the application component.
app_component_uuid (STRING): UUID of the application component.
host_name (STRING): Fully qualified domain name (FQDN) of the host.
software_product (STRING): Name of the software product running on the host.
host_error_num (INT): Number of the error on the host.
host_error_string (STRING): Description of the error on the host.

host.app.error

Severity

ERROR

Description

This message occurs when a host encounters an error specific to an application.

Corrective Action

For more information or assistance, contact NetApp technical support.

Syslog Message

Application %s (UUID: %s) on host %s running %s reported error %d: %s.

Parameters

app_name (STRING): Name of the application.
app_uuid (STRING): UUID of the application.
host_name (STRING): Fully qualified domain name (FQDN) of the host.
software_product (STRING): Name of the software product running on the host.
host_error_num (INT): Number of the error on the host.
host_error_string (STRING): Description of the error on the host.

host.error events

host.error

Severity

ERROR

Description

This message occurs when the host software encounters an error.

Corrective Action

For more information or assistance, contact NetApp technical support.

Syslog Message

Host %s running %s reported error %d: %s.

Parameters

host_name (STRING): Fully qualified domain name (FQDN) of the host.
software_product (STRING): Name of the software product running on the host.
host_error_num (INT): Number of the error on the host.
host_error_string (STRING): Description of the error on the host.

hotplug events

hotplug.generic events

hotplug.generic.busy_not_ready

Severity

ERROR

Description

This message occurs when a module replacement or removal command fails because the driver or system is busy. Hot plug functionality is not available at this time.

Corrective Action

Try the command again after a few minutes. If the system remains busy, it is an internal error. Contact NetApp technical support for assistance.

Syslog Message

%s command failed for module %s in slot %s of node %s because the driver or system is busy.

Parameters

command (STRING): Name of the command.
card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert events

hotplug.insert.badCard.type

Severity

ERROR

Description

This message occurs when the module type does not match the system's record for this slot.

Corrective Action

Use a replacement module of the same type.

Syslog Message

%s module insertion failed in slot %s of node %s because the module type does not match the system's record for this slot.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert.badCard.ver

Severity

ERROR

Description

This message occurs when the module revision does not match the system's record for this slot.

Corrective Action

Use a replacement module of the same board revision.

Syslog Message

%s module insertion failed in slot %s of node %s because the module revision does not match the system's record for this slot.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert.illegal_card

Severity

NOTICE

Description

This message occurs when the module inserted is not supported.

Corrective Action

Use vendor-approved modules.

Syslog Message

%s module insertion failed in slot %s of node %s because the module is not supported.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert.link_not_up

Severity

ALERT

Description

This message occurs when link on module fails to initialize after module is powered on.

Corrective Action

Reinsert the module and try command again. If problem persists, contact NetApp technical support for assistance.

Syslog Message

%s module insertion failed in slot %s of node %s because the link on module failed to initialize.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert.no_power_up

Severity

ALERT

Description

This message occurs when a module does not initialize after it is powered on.

Corrective Action

Reinsert the module and try the command again. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

%s module insertion failed in slot %s of node %s because module failed to initialize.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.insert.success

Severity

NOTICE

Description

This message occurs when module insertion is successful.

Corrective Action

(None).

Syslog Message

%s module insertion is successful in slot %s of node %s.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.remove events

hotplug.remove.success

Severity

NOTICE

Description

This message occurs when module removal is successful.

Corrective Action

(None).

Syslog Message

%s module removal is successful in slot %s of node %s.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

hotplug.replace events

hotplug.replace.success

Severity

NOTICE

Description

This message occurs when module replacement is successful.

Corrective Action

(None).

Syslog Message

%s module replacement is successful in slot %s of node %s.

Parameters

card (STRING): Name of the module.
slot (STRING): Number of the slot.
node (STRING): Name of the node.

http events

http.cfg events

http.cfg.csrf.max.tokens

Severity

NOTICE

Description

This message occurs when the maximum number of Cross-Site Request Forgery (CSRF) tokens has been reached. Web applications served from ONTAP®, such as ONTAP System Manager, use CSRF tokens to prevent unauthorized modifications to the cluster. When the token limit has been reached, new connections to these applications will not be able to make changes to the cluster configuration.

Corrective Action

You can fix the issue in a few different ways. You can disable CSRF protection by using the "system services web modify -csrf-protection-enabled false" command. You can increase the maximum number of tokens by using the "system services web modify -csrf-token-concurrent-limit <number>" command. You can wait until existing CSRF tokens expire. You can view and modify CSRF token settings by using the "system services web show" command.

Syslog Message

Maximum number of CSRF tokens (%d) has been reached.

Parameters

limit (INT): Maximum number of CSRF tokens that can exist at any given time.

httpd events

httpd.api events

httpd.api.expired.session.limit

Severity

ERROR

Description

This message occurs when a Manage ONTAP® API request to an internal server expires due to configured session limits.

Corrective Action

Inspect the last error contained in the message to determine why the API request exceeded the configured session limits. The "security session show -interface ontapi" command may be used to display all active and pending API requests across the cluster. Run "security session limit show -interface ontapi" to verify the currently configured session limits.

Syslog Message

A Manage ONTAP® API request (%s) has expired after %lu seconds. Last error: %s

Parameters

api_name (STRING): The name of the API.
elapsed_time (LONGINT): The age of the API request (in seconds).
last_error (STRING): Reason for the warning, indicating the limit category that was exceeded.
purge_time (LONGINT): The purge time (in seconds) for outstanding API requests.
trace_tag (LONGINTHEX): The generated trace tag associated with the API request.

hwaccel events

hwaccel.init events

hwaccel.init.failed

Severity

ALERT

Description

This message occurs when initialization of a hardware accelerator fails due to an unexpected software error. The system falls back to software acceleration and continues to function normally, but expect reduced performance.

Corrective Action

Rebooting the system might clear the problem. The problem might be caused by a software bug, but is likely indicative of a hardware failure. If the problem persists, contact NetApp technical support.

Syslog Message

Initialization of hardware accelerator %s fails due to unexpected software error %s:%d.

Parameters

devName (STRING): Name of the acceleration device; for example, "qat0".
module (STRING): Name of the software module or driver.
error (INT): Module-specific error code.

hwaccel.reset events

hwaccel.reset

Severity

NOTICE

Description

This message occurs when a hardware accelerator is reset using software.

Corrective Action

(None).

Syslog Message

Hardware accelerator %s reset by %s.

Parameters

devName (STRING): Name of the acceleration device; for example, "qat0".
module (STRING): Name of the software module or driver.

hya events

hya.dup_vbn_lookup events

hya.dup_vbn_lookup

Severity

ERROR

Description

This event is generated if we detect redundant lookups of a PVBN without an intervening suspend.

Corrective Action

(None).

Syslog Message

%s %s %s %s %s %s %s %s %s %s %s

Parameters

f2 (STRING): Third frame of backtrace.
f3 (STRING): Fourth frame of backtrace.
f4 (STRING): Fifth frame of backtrace.
f5 (STRING): Sixth frame of backtrace.
f6 (STRING): Seventh frame of backtrace.
f7 (STRING): Eighth frame of backtrace.
f8 (STRING): Ninth frame of backtrace.
f9 (STRING): Tenth frame of backtrace.
f10 (STRING): Eleventh frame of backtrace.
f11 (STRING): Twelfth frame of backtrace.
f12 (STRING): Thirteenth frame of backtrace.

hya.dup_vbn_lookup.detail

Severity

ERROR

Description

This event is generated if we detect redundant lookups of a PVBN without an intervening suspend.

Corrective Action

(None).

Syslog Message

%s %s

Parameters

description (STRING): Description of failure.
buffers (STRING): Details of buffers that were predirtied.

hybaggrcopy events

hybaggrcopy.dstgeommismatch events

hybAggrCopy.dstGeomMismatch

Severity

ERROR

Description

This message occurs when there is a mismatch between the disk geometries of source and destination hybrid aggregates.

Corrective Action

Satisfy the following conditions: Both aggregates are hybrid. The destination aggregate has at least the same number of HDD and SSD disks as the source aggregate. The disk size and type of each disk of the source aggregate matches those of the destination aggregate.

Syslog Message

Aggregate %s cannot be copied. Source and destination hybrid aggregate geometries do not match.

Parameters

srcaggr (STRING): Aggr copy source aggregate.

hybaggrcopy.srcgeommismatch events

hybAggrCopy.srcGeomMismatch

Severity

ERROR

Description

This message occurs when an aggregate cannot be copied. The issue is either that the source is a hybrid aggregate and the destination is not, or there is a mismatch between the disk geometries of the source and destination hybrid aggregates.

Corrective Action

Verify that the source and destination are both hybrid aggregates. Verify that the destination aggregate has at least the same number each of hard disk drives (HDDs) and solid state drives (SSDs) as the source aggregate. Verify that the disk size and type of each disk of the source aggregate matches those of the destination aggregate.

Syslog Message

Aggregate %s cannot be copied. Either the source is a hybrid aggregate but the destination is not, or the source and destination hybrid aggregate geometries do not match.

Parameters

srcaggr (STRING): Name of the source aggregate.

ic events

ic.hainterconnectdown events

ic.HAInterconnectDown

Severity

ERROR

Description

This message occurs every hour when the high-availability (HA) interconnect is down.

Corrective Action

Base the corrective action on the number and type of HA interconnect links supported by the platform and the reason for which the interconnect is down. If links are down: Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. If links are disabled: Enable the links by using the "system ha interconnect link on" command. If a peer is not connected: Disable and reenable the links one at a time by using the "system ha interconnect link off" and "system ha interconnect link on" commands. If the problem persists, contact NetApp technical support.

Syslog Message

HA interconnect: Interconnect down for %d minutes: %s

Parameters

ic_downtime (INT): Amount of time (in minutes) the connection has been down.
reason (STRING): Reason that the HA interconnect is down, which might be due to links being down, links being disabled, or an unconnected peer.

ic.hainterconnectlinkdown events

ic.HAInterconnectLinkDown

Severity

ERROR

Description

This message occurs every hour when one of the high-availability (HA) interconnect links is down.

Corrective Action

Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. When one link is down on platforms with two available links, HA link redundancy is lost. However, HA services are still working and enabled on the secondary link.

Syslog Message

HA interconnect: %s link #%d has been down for %d minutes.

Parameters

link_type (STRING): Type of link that is down. Possible values are external and backplane.
link_num (INT): Number that identifies which link is down.
link_downtime (INT): Amount of time (in minutes) the link has been down.

ic.linkspeeddegraded events

ic.linkSpeedDegraded

Severity

ERROR

Description

This message occurs when the high-availability (HA) interconnect detects a degraded link speed.

Corrective Action

For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. If the problem persists, contact NetApp technical support.

Syslog Message

HA interconnect: Link speed of link #%d degraded. Current: %s, expected: %s.

Parameters

link_num (INT): Number that identifies the link.
link_speed (STRING): Current link speed.
expected_speed (STRING): Link speed expected for the HA interconnect device.

ic.linkstatuschange events

ic.linkStatusChange

Severity

INFORMATIONAL

Description

This message occurs when the link status changes for a high-availability (HA) interconnect port.

Corrective Action

Verify that both controllers in the HA pair are operational. For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. When one link is down on platforms with two available links, HA link redundancy is lost. However, HA services are still working and enabled on the secondary link.

Syslog Message

HA interconnect: Port %s link is %s.

Parameters

port_name (STRING): Name of the port for which link status changed.
link_status (STRING): Link status string: "up" or "down".

ic.linkwidthdegraded events

ic.linkWidthDegraded

Severity

ERROR

Description

This message occurs when the high-availability (HA) interconnect detects a degraded link width. This can affect the write performance of the system.

Corrective Action

For externally connected links, make sure that the interconnect cables are connected properly and that small form-factor pluggable (SFP) modules, if applicable, are seated properly on both controllers. For internally connected links, disable and reenable the links one at a time by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands. If the problem persists, contact NetApp technical support.

Syslog Message

HA interconnect: Link width of link #%d degraded. Current: %dX, expected: %dX.

Parameters

link_num (INT): Number that identifies the link.
link_width (INT): Current link width.
expected_width (INT): Link width expected for the HA interconnect type.

ic.unsupportcable events

ic.unsupportCable

Severity

ERROR

Description

This message occurs when an unsupported cable is detected on the high-availability interconnect port. An unsupported cable might cause the interconnect to be unstable, resulting in unsynchronized logs.

Corrective Action

Unplug the unsupported cable, and then plug in a supported cable. Search the support site "Hardware Universe" for information about supported high-availability cables for this platform.

Syslog Message

Detected unsupported %s cable with part number %s.

Parameters

> **cable_type** (STRING): Cable type.
> **cable_part** (STRING): Cable part number.

ic.viif events

ic.viif.initFailed

Severity

> ERROR

Description

> This message occurs when the driver fails to create a virtual interface.

Corrective Action

> Reboot the controller. Contact NetApp technical support if the problem persists.

Syslog Message

> HA interconnect: Virtual interface initialization failure.

Parameters

> (None).

iclink events

iclink.init events

iclink.init.error

Severity

ALERT

Description

This message occurs when the HA interconnect fails to initialize.

Corrective Action

Reboot the system. If the problem persists, run diagnostics on the memory in the node.

Syslog Message

(None).

Parameters

errorCode (INT): The internal error code.

iclink.probe events

iclink.probe.error

Severity

ALERT

Description

This message occurs when the system cannot detect a High Availability (HA) interconnect card, making HA communication inoperable.

Corrective Action

Verify that the High Availability interconnect card is present and operational on the system. If this message persists, disable and reenable the link by using the (privilege: advanced) "system ha interconnect link off" and "system ha interconnect link on" commands.

Syslog Message

(None).

Parameters

errorCode (INT): Internal error code.

icmp events

icmp.ping events

icmp.ping.throttle

Severity

NOTICE

Description

This message occurs when the system receives a burst of ICMP ping packet within a one-second interval. The packets are dropped by the system because these packets could be due to an ICMP attack.

Corrective Action

If the condition persists, determine the network source of the ICMP ping traffic and then block it by using a firewall rule. For assistance in determining the source, contact your network administrator.

Syslog Message

icmp_input: The system dropped %d ping packets after limiting the packets to %d per second.

Parameters

pingDropped (INT): ICMP_ECHO packets dropped due to throttling since the last time this message was generated.
icmpLimit (INT): Maximum number of ICMP packets per second.

image events

image.copy events

image.copy.bypass.ds.chk

Severity

ALERT

Description

This message occurs when ONTAP software installation was performed via the boot menu, which does not verify the digital signature of the software image.

Corrective Action

Corrective action is not required if the software was installed by authorized personnel. Corrective action might be required if the software was installed by unauthorized personnel because the specified image might not be authorized or digitally signed.

Syslog Message

ONTAP software image %s was installed without digital signature verification.

Parameters

cfcard_image (STRING): Software image name that was installed.

image.install events

image.install.bypass.ds.chk

Severity

ALERT

Description

This message occurs when ONTAP software installation was performed via the boot menu, which does not verify the digital signature of the software image. Since boot_recovery or netboot was used, the boot device is formatted and both primary and backup software images are installed.

Corrective Action

Corrective action is not required if the software was installed by authorized personnel. Corrective action might be required if the software was installed by unauthorized personnel because it might not be authorized or digitally signed.

Syslog Message

The installed primary and backup ONTAP software images were not digitally verified.

Parameters

(None).

image.install.fail.aggregate

Severity

ERROR

Description

This message occurs when a software image installation fails, because one or more aggregates or volumes are not online.

Corrective Action

Ensure that aggregates and volumes are all online by using the "storage aggregate show -state !online" command and the "volume show -state !online -state !restricted" command.

Syslog Message

Image installation fail: One or more aggregates are not online.

Parameters

(None).

image.install.fail.mcluster

Severity

ERROR

Description

This message occurs when a software image installation fails because a MetroCluster(tm) switchover operation is in progress or already switched over.

Corrective Action

Use the "metrocluster show" command to verify that both the local and remote clusters are neither performing switchover nor in switchover mode.

Syslog Message

MetroCluster switchover operation is in progress or already switched over.

Parameters

(None).

image.install.fail.sfostate

Severity

ERROR

Description

This message occurs when a software image installation fails because the node is in takeover state.

Corrective Action

Ensure that all storage failover operations have been completed and that no nodes remain taken over by using the "storage failover show-giveback" command, and then try the installation again.

Syslog Message

The node is taken over, cannot set to new image.

Parameters

(None).

image.install.fail.sign

Severity

ALERT

Description

This message occurs when the software installation process cannot verify the digital signature of the intended image.

Corrective Action

Replace the image, and then try the command again.

Syslog Message

Image installation fail: Image digital signature check failed.

Parameters

(None).

ipfw events

ipfw.reachedmaxstates events

ipfw.ReachedMaxStates

Severity

NOTICE

Description

This message occurs when the ipfw firewall fails to create a new dynamic state entry for a "keep-state" rule because the number of dynamic state entries has reached the maximum allowed value of 32768. The "keep-state" rule is used by the firewall to keep track of whether a connection is established. States are maintained by firewall for TCP, UDP, BGP, and ESP packets. This message occurs at most once every 60 seconds; it lists the most recent connections to reach the limit.

Corrective Action

(None).

Syslog Message

The ipfw firewall failed to create dynamic "keep-state" entry. Reason: %s, current # of entries: %d. Recent connections reaching this limit: %s

Parameters

message (STRING): Information about the failed ipfw dynamic state creation.
current_states_held (INT): Current total number of ipfw dynamic "keep state" entries held.
cnn_message (STRING): Information about recent connections that reached the limit.

ipmultipath events

ipmultipath.init events

ipmultipath.init.badChksumType

Severity

ERROR

Description

This message occurs during IP Multipath session initialization, when an INIT packet with an unknown checksum type is received.

Corrective Action

The two end points are possibly running incompatible versions of ONTAP. Run identical/compatible versions of ONTAP on the two end points and try again.

Syslog Message

Unknown checksum type (%d) in IP Multipath INIT packet.

Parameters

chksum_type (INT): Checksum type received.

ipmultipath.init.badVersion

Severity

ERROR

Description

This message occurs during IP Multipath session initialization, when an INIT packet with an unknown version number is received.

Corrective Action

The two end points are possibly running incompatible versions of ONTAP. Run identical/compatible versions of ONTAP on the two end points and try again.

Syslog Message

Unknown version (%d) in IP Multipath INIT packet.

Parameters

version (INT): Version number received.

ipmultipath.session events

ipmultipath.session.noMemory

Severity

ERROR

Description

This message occurs when an IP Multipath session is dropped due to failure to allocate memory.

Corrective Action

The system is out of memory. Try to reduce load on the system. When memory becomes available, IP Multipath automatically reestablishes the session.

Syslog Message

IP Multipath aborting session due to failure to allocate memory.

Parameters

(None).

ipmultipath.setup events

ipmultipath.setup.bindFailed

Severity

ERROR

Description

This message occurs during IP Multipath connection setup, when the IP Multipath listener process cannot bind to any IP address of the source.

Corrective Action

The source host information provided to IP Multipath is probably incorrect. Correct the configuration information and retry.

Syslog Message

IP Multipath failed to bind to %s.

Parameters

src (STRING): Host name on which the failure occurred.

ipmultipath.setup.connFailed

Severity

ERROR

Description

This message occurs during IP Multipath connection setup, when it cannot connect to the remote end point.

Corrective Action

The destination host information provided to IP Multipath is incorrect or the remote host is unreachable. Correct configuration information and retry. If the remote host is unreachable, IP Multipath automatically establishes the connection after the problem is corrected.

Syslog Message

IP Multipath failed to connect to %s.

Parameters

    dst (STRING): Host name of the remote host.

ipsec events

ipsec.ib events

ipsec.ib.bad.encrypt

Severity

ALERT

Description

This message occurs when an inbound IPsec packet cannot be successfully decrypted. Corrupt data is received.

Corrective Action

The IPsec SA database could be out of sync to cause this decryption failure. Use the "security ipsec policy modify -is-enabled" command to disable and then reenable the affected policy matching the source and destination IP address.

Syslog Message

IPsec: %s packet cannot be successfully decrypted.

Parameters

sa2str (STRING): IPsec Security Association (SA) in string format SA (Security Parameter Index, source IP address, destination IP address).

ipsec.ib.no.lookup

Severity

NOTICE

Description

This message occurs when an inbound IPsec packet cannot able to locate the IPsec Security Association (SA) from the SA database. The remote side is using an SA which does not exist in the local SA database.

Corrective Action

The IPsec SA database is out of sync. Use the "security ipsec policy modify -is-enabled" command to disable and then reenable the affected policy matching the source and destination IP address.

Syslog Message

IPsec: SA not found. SPI: %s Src IP: %s Dst IP: %s.

Parameters

spi (STRING): IPsec SA Security Parameter Index (SPI).
srcAddr (STRING): Source IP address.
dstAddr (STRING): Destination IP address.

ipsec.ib.no.replay

Severity

NOTICE

Description

This message occurs when an inbound IPsec Security Association (SA) encounters a replay check failure. Number of out-of-order and retransmitted IPsec packet received. Possible causes include a denial-of-service (DoS) attack or traffic congestion.

Corrective Action

Possible traffic congestion or DoS attack.

Syslog Message

IPsec: %s replay packets detected. Possible DoS attack or traffic congestion.

Parameters

sa2str (STRING): IPsec SA in string format SA (Security Parameter Index, source IP address, destination IP address).

ipsec.ib.policy.violation

Severity

ALERT

Description

This message occurs when an inbound IPsec packet is found to violate the security policy. It is either not IPsec protected or it is protected in a different way than the policy specifies.

Corrective Action

check the IPsec policy configuration on both ends to make sure that they match each other.

Syslog Message

IPsec: Inbound %s packet %s =⇒ %s security policy violation.

Parameters

protocol (STRING): Packet protocol.
srcAddr (STRING): Source IP address.
dstAddr (STRING): Destination IP address.

ipsec.ob events

ipsec.ob.no.acquire

Severity

NOTICE

Description

This message occurs when the kernel cannot acquire an IPsec Security Association (SA) to protect an outbound packet.

Corrective Action

Double check the IPsec policy configuration on both ends to make sure that they match each other.

Syslog Message

IPsec: Could not acquire SA for packet %s =⇒ %s.

Parameters

srcAddr (STRING): Source IP address.
dstAddr (STRING): Destination IP address.

iscsi events

iscsi.loginfailure events

iscsi.loginFailure

Severity

NOTICE

Description

This event is issued when an initiator fails an iSCSI login attempt.

Corrective Action

Attempt to configure the iSCSI text keys on the initiator such that the iSCSI login succeeds. If the event occurs occasionally but does not affect stability or performance, no corrective action is needed but the event should be monitored. If the event persists and/or iSCSI application performance degrades, starting and stopping the iSCSI service and restarting any iSCSI applications may help clear the condition. Contact NetApp technical support.

Syslog Message

ISCSI: iSCSI login failure, '%s'

Parameters

m (STRING): A more detailed message describing the iSCSI login failure.

iscsi.loginipnotauthorized events

iscsi.loginIpNotAuthorized

Severity

NOTICE

Description

This message occurs when the system rejects an iSCSI login attempt because it originates from an unauthorized IP address.

Corrective Action

Run 'iscsi security show -address-ranges' to see if the initiator IP address has been added to the list of permitted IP addresses from where iSCSI logins are allowed.

Syslog Message

iSCSI login authorization failure. Initiator %s attempted to log in on Vserver %s, LIF %s from IP address %s

Parameters

initiator_name (STRING): Name of the initiator that attempted to login.
vserver (STRING): Name of the vserver to which the unauthorized login attempt is made.
lif (STRING): Name of the LIF where the login was attempted.
initiator_ip_address (STRING): Source IP address of the initiator that attempted to login.

iscsi.notice events

iscsi.notice

Severity

NOTICE

Description

This event is issued when a loggable, non-error event occurs within the iSCSI subsystem.

Corrective Action

(None).

Syslog Message

ISCSI: %s

Parameters

m (STRING): A more specific message describing the event.

iscsi.session events

iscsi.session.stateChanged

Severity

NOTICE

Description

This message occurs when iSCSI session status is changed.

Corrective Action

If the identified iSCSI session is experiencing unexpected events (disconnecting, reconnecting, or connected), examine the link for excessive errors or latency.

Syslog Message

iSCSI session state is changed to %s for the target %s (type: %s, address: %s). %s

Parameters

iscsi_session_state (STRING): New iSCSI session state.
iscsi_target (STRING): iSCSI target name.
iscsi_target_type (STRING): iSCSI target type.
iscsi_target_address (STRING): iSCSI target address.
iscsi_session_state_change_reason (STRING): Reason for the iSCSI session state change.
iscsi_timeout_value (INT): iSCSI timeout value.

iscsi.warning events

iscsi.warning

Severity

NOTICE

Description

This event is issued if the iSCSI subsystem detects an abnormal state.

Corrective Action

(None).

Syslog Message

ISCSI: %s

Parameters

m (STRING): A more specific message describing the state.

isns events

isns.enqueue events

isns.enqueue.failed

Severity

ERROR

Description

This message occurs when the Internet Storage Name Service (iSNS) is not able to enqueue a new operation to the iSNS subsystem.

Corrective Action

The iSNS failed to enqueue an action into the work queue. This may be due to an overloaded system. Please consider moving the Vserver's Management LIF to another node for that Vserver in the cluster with a lighter work-load.

Syslog Message

The iSNS cannot enqueue an operation %s for Vserver %s.

Parameters

event (STRING): Event/Operation that was no enqueued.
vserver (STRING): Name of the Vserver

isns.portal events

isns.portal.info.unavailable

Severity

ERROR

Description

This message occurs when the Internet Storage Name Service (iSNS) is not able to retrieve the portal information required for iSNS registration.

Corrective Action

Ensure that at least one node hosting a IP data LIF for SAN is successfully loaded and operating correctly.

Syslog Message

The iSNS cannot retrieve the portal information for %s: %s.

Parameters

vserver (STRING): Name of the Vserver
err_msg (STRING): Reported error.

isns.reg events

isns.reg.info.unavailable

Severity

ERROR

Description

This message occurs when the Internet Storage Name Service (iSNS) registration information is not valid or not available.

Corrective Action

Check the Data ONTAP® iSNS configuration to ensure that all configuration information is present. Also check the cluster health for the impacted node to ensure that it is online.

Syslog Message

The iSNS registration information for %s was not valid or not available: %s.

Parameters

vserver (STRING): Name of the Vserver
err_msg (STRING): Reported error.

isns.reg.pdu.oversized

Severity

ALERT

Description

This message occurs when the the Internet Storage Name Service (iSNS) registration query packet data unit (PDU) length is larger than the supported maximum value. iSNS will not function properly until the problem is resolved.

Corrective Action

Reconfigure the networking interfaces to reduce the portals until the iSNS registration query PDU is within its maximum value.

Syslog Message

The iSNS registration query for %s failed due to the oversized iSNS query PDU length. Reduce the networking interface portals.

Parameters

vserver (STRING): Name of the Vserver

isns.reg.period.too_small

Severity

INFORMATIONAL

Description

This message occurs when the Internet Storage Name Service (iSNS) requests a registration period that is too small. When this happens, the iSNS client service will be automatically disabled.

Corrective Action

Reconfigure the server to increase the registration period.

Syslog Message

The iSNS registration period for %s was too small (%d); increase the registration period.

Parameters

vserver (STRING): Name of the Vserver
period (INT): Registration period received from the iSNS server

isns.socket events

isns.socket.conn.failed

Severity

ERROR

Description

This message occurs when the TCP socket connection in the Internet Storage Name Service (iSNS) fails to connect to the iSNS server.

Corrective Action

The iSNS failed to create a socket for communicating with the iSNS server. Check the Data ONTAP® network configuration to ensure that the address for the iSNS server is in the routing group for all Vserver Management LIFs for the Vserver and that they are reachable via the clustered Data ONTAP "network ping" command.

Syslog Message

The iSNS TCP socket connection failed for %s to %s: %s

Parameters

vserver (STRING): Name of the Vserver
ip_address (STRING): IP address for the iSNS server.
err_msg (STRING): Reported network error.

isns.socket.setup.failed

Severity

ERROR

Description

This message occurs when the Internet Storage Name Service (iSNS) fails to create a socket for communicating with the iSNS server.

Corrective Action

Check the Data ONTAP® network configuration to ensure that the address for the iSNS server is in the routing group for all Vserver Management LIFs for the Vserver and that they are reachable via the clustered Data ONTAP "network ping" command.

Syslog Message

The iSNS for %s failed to create a socket to %s; check the Data ONTAP network configuration.

Parameters

vserver (STRING): Name of the Vserver
ip_address (STRING): IP address for the iSNS server.

kern events

kern.cron events

kern.cron.dstError

Severity

ERROR

Description

This event is issued when the kernel cron daemon is unable to reschedule an internal process due to an error in handling of daylight savings time.

Corrective Action

(None).

Syslog Message

Daylight Saving Time change caused %s to be scheduled at an invalid time could not reschedule it, deleting further scheduling

Parameters

owner (STRING): The name of the process that was supposed to be scheduled

kern.cron.reschedDst

Severity

NOTICE

Description

This event is issued when the kernel cron daemon reschedules an event to run at a newly scheduled time as a result of a daylight savings time change.

Corrective Action

(None).

Syslog Message

Daylight Savings Time change: rescheduling %s to run at %s

Parameters

owner (STRING): The name of the process that was scheduled
time (STRING): The text version of the time string at which the event was scheduled

kern.log events

kern.log.rotate

Severity

NOTICE

Description

This event is issued when the system messages log is rotated to a new name. This event will be the first event in the new message file. When in takeover mode, this event is also issued for the partner node.

Corrective Action

(None).

Syslog Message

System %s (ID %s) is running %s

Parameters

hostname (STRING): The host name of the appliance.
serialno (STRING): The serial number of the host.
short_version (STRING): The short version string of the OnTap kernel, in the form 'NetApp Release NNNN'.

kern.rc events

kern.rc.errorMsg

Severity

NOTICE

Description

This event is issued when an error printf is issued by the kernel in the context of executing the /etc/rc file.

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The text of the message

kern.rc.msg

Severity

NOTICE

Description

This event is issued when a printf is issued by the kernel in the context of executing the /etc/rc file.

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The text of the message

kern.shutdown events

kern.shutdown

Severity

NOTICE

Description

This event is issued to indicate a pending shutdown is underway.

Corrective Action

(None).

Syslog Message

System shut down because : "%s".

Parameters

type (STRING): The type of shutdown (halt or reboot) that is underway.

kern.shutdown.cantDeleteEntry

Severity

ERROR

Description

This event is issued when we detect that a halt or reboot is about to occur but a registry entry cannot be deleted

Corrective Action

(None).

Syslog Message

(None).

Parameters

key (STRING): The registry key

kern.syslog events

kern.syslog.drops

Severity

ERROR

Description

This event is generated when we detect that syslog messages were dropped before being logged. Syslog messages may be dropped if one or more Data ONTAP subsystems are generating many syslog messages

over short period of time. That can be an indicator that those subsystems are experiencing problems that need to be resolved.

Corrective Action

Look in the syslog messages file at the messages prior to this message. If they all seem to be coming from a common subsystem, it may indicate that there is a problem with that subsystem. Attempt to resolve the problem with that subsystem.

Syslog Message

Dropped %d syslog messages starting at %s due to lack of internal log buffers

Parameters

numDrops (INT): The number of messages that have been dropped.
timestamp (STRING): A timestamp that indicates the time when the syslog messages started being dropped.

kern.syslog.msg

Severity

NOTICE

Description

This event is generated when a kernel syslog message is detected.

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The text of the message
vfilerName (STRING): The name of the vfiler that generated the message

kern.syslogd events

kern.syslogd.error

Severity

ERROR

Description

This message occurs when an event is generated to log errors from the syslog daemon.

Corrective Action

(None).

Syslog Message

syslog daemon error %s.

Parameters

ErrMsg (STRING): Specific error generated by the syslog daemon.

kern.timezone events

kern.timezone.change

Severity

NOTICE

Description

This message occurs when the configured time zone changes.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_tz (STRING): Previous time zone.
old_tz_offset (INT): Seconds east of UTC of the previous time zone.
new_tz (STRING): New time zone.
new_tz_offset (INT): Seconds east of UTC of the new time zone.

kern.uptime events

kern.uptime.filer

Severity

NOTICE

Description

This message occurs to display the uptime status of the controller. Typically, this message is generated once per hour.

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): Text message describing the current status of the controller.
secs (LONGINT): Number of seconds since the controller was booted.
nfsOps (LONGINT): Number of NFS operations that have been performed.
cifsOps (LONGINT): Number of CIFS operations that have been performed.
httpOps (LONGINT): Number of HTTP operations that have been performed.
fcpOps (LONGINT): Number of FCP operations that have been performed.
iscsiOps (LONGINT): Number of iSCSI operations that have been performed.

nvmeFcOps (LONGINT): Number of NVMe/FC operations that have been performed.
nvmeTcpOps (LONGINT): Number of NVMe/TCP operations that have been performed.
nvmeRoceOps (LONGINT): Number of NVMe/RDMA over Converged Ethernet(RoCE) operations that have been performed.

kern.version events

kern.version.change

Severity

NOTICE

Description

This message occurs when you reboot your system with a version of the Data ONTAP® kernel that is different from the one you ran previously.

Corrective Action

(None).

Syslog Message

Data ONTAP kernel version was changed from %s to %s.

Parameters

oldver (STRING): Previous version of the Data ONTAP kernel.
newver (STRING): Current version of the Data ONTAP kernel.

kern.vm events

kern.vm.mmap.return

Severity

NOTICE

Description

This message occurs when an attempt to create a new mapping in the virtual address space of a process has failed.

Corrective Action

(None).

Syslog Message

mmap(2) by %s (pid %d) for size %ld failed: %s, limit %ld, error %d.

Parameters

process_name (STRING): Name of the process with the failed attempt.
process_id (INT): ID of the process with the failed attempt.
size (LONGINT): Size in bytes of the memory map attempt.
message (STRING): Details about the failed memory map attempt.
limit (LONGINT): Size in bytes of the process's virtual memory limit.
errno (INT): The error code returned to the process.

km events

km.cluster events

km.cluster.okm.hierarchy.bad

Severity

ALERT

Description

This message occurs in a MetroCluster(tm) configuration, when one or both clusters have been configured with the Onboard Key Manager, but one or both of the Onboard Key Manager key hierarchies are corrupted. Specifically, the 'hashed_pass' object does not match the 'hashed_pass_l' object in at least one cluster.

Corrective Action

Reboot each of the nodes in the MetroCluster configuration.

Syslog Message

This cluster is part of a MetroCluster configuration. The Onboard Key Manager key hierarchy on one or both of the clusters is corrupted. Specifically, the 'hashed_pass' object does not match the 'hashed_pass_l' object, part of the 'cluster_kdb' table, in either cluster.

Parameters

(None).

km.cmek events

km.cmek.gckms.available

Severity

NOTICE

Description

This message occurs when a configured Google Cloud Key Management Service (GCKMS) that was previously reported as unavailable for key operations is now available.

Corrective Action

(None).

Syslog Message

The GCKMS with project ID: "%s", key ring location: "%s", key ring: "%s" and key name: "%s" configured is now available.

Parameters

projectId (STRING): Project ID.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.
keyName (STRING): Name of the key.

km.cmek.gckms.keyVersionChg

Severity

NOTICE

Description

This message occurs when a change is made to the current key version associated with the key name of the configured Google Cloud Key Management Service (GCKMS). The key version might have been auto-rotated or manually changed at the GCKMS. Additionally, the top-level internal key protection key is successfully re-wrapped with the current key version of the GCKMS key name.

Corrective Action

(None).

Syslog Message

The version of the key "%s" owned by GCKMS project ID "%s", with key ring "%s" at "%s", has been changed from "%s" to "%s".

Parameters

keyName (STRING): Name of the key.
projectId (STRING): Project ID of the GCKMS.
keyringName (STRING): Name of the key ring.
keyringLocation (STRING): Location of the key ring.
oldKeyVersion (STRING): Prior key version.
newKeyVersion (STRING): New key version.

km.cmek.gckms.notAvailable

Severity

ALERT

Description

This message occurs when a check for the availability of the configured Google Cloud Key Management Service (GCKMS) fails. The GCKMS might be down or there might be a network-related problem preventing communication. Without access to the GCKMS, the system might not be able to restore encryption keys needed to mount encrypted volumes. If the GCKMS is not available, then the next time this system boots, the failure to restore the keys might prevent the system from booting successfully or the encrypted volumes hosted on this system from coming online.

Corrective Action

Verify that the GCKMS configuration is correct and verify the permissions and connectivity are correct. If the issue still persists, contact technical support.

Syslog Message

The GCKMS with project ID: "%s", key ring location: "%s", key ring: "%s" and key name: "%s" is not available.

Parameters

projectId (STRING): Project ID.
keyringLocation (STRING): Location of the key ring.
keyringName (STRING): Name of the key ring.
keyName (STRING): Name of the key.

km.cmek.init.failed

Severity

ALERT

Description

This message occurs when the system fails to initialize the key hierarchy required for volume encryption and that is protected by the Customer Managed Encryption Key (CMEK). Reasons for failure include failure to create the key hierarchy, incorrect CMEK configuration, identity, networking or permission issues in communicating with the CMEK hosted service and failure to store the CMEK wrapped key hierarchy in an external store like etcd.

Corrective Action

Ensure that the configuration, identity, networking and permissions required to communicate with the CMEK hosted service are configured correctly. If the issue persists, contact technical support.

Syslog Message

Initialization of the CMEK protected key hierarchy fails. Reason: "%s".

Parameters

reason (STRING): Reason for failure.

km.cmek.init.success

Severity

NOTICE

Description

This message occurs when the system successfully initializes and protects the key hierarchy with a Customer Managed Encryption Key (CMEK). The system is ready to support encrypted volumes.

Corrective Action

(None).

Syslog Message

CMEK protected key hierarchy initialization successfully completed.

Parameters

(None).

km.extkeysvr events

km.extkeysvr.details

Severity

NOTICE

Description

This message occurs when a key is retrieved or restored from an external KMIP server. This is an informational message that describes the external KMIP server where the key is stored.

Corrective Action

(None).

Syslog Message

Key ID "%s" restored/retrieved from external key server "%s".

Parameters

keyId (STRING): Key ID of the key being restored or retrieved.
hostPort (STRING): Host port details of the external KMIP server.

km.keyretrieve events

km.keyretrieve.failed

Severity

ALERT

Description

This message occurs when a node fails to retrieve a complete set of encryption keys from the configured key servers by the time the management process comes online. Should this node take ownership of an encrypted volume associated with a missing key before the key becomes available, the encrypted volume cannot come online.

Corrective Action

Use the "security key-manager external restore -node <node> -vserver <vserver>" command to manually restore the keys.

Syslog Message

Key auto-retrieve failed on node %s for Vserver %s (ID %u, UUID %s).

Parameters

node (STRING): Name of the node whose management process goes online.
vserver (STRING): Name of the Vserver that could not retrieve all of the keys.
vserverId (INT): Vserver ID of the Vserver.
vserverUuid (STRING): UUID of the related Vserver.

km.keyserver events

km.keyserver.available

Severity

NOTICE

Description

This message occurs when a check by the key manager for connectivity with a configured key management server indicates that the key management server that was previously unavailable is now available.

Corrective Action

(None).

Syslog Message

The external key management server "%s" is now available for Vserver "%s".

Parameters

address (STRING): IP address of the key management server.
vserver (STRING): Name of the Vserver where the key management server is configured.

km.keyserver.notavailable

Severity

ALERT

Description

This message occurs when a check by the key manager for connectivity with a configured key management server indicates that the key management server is not available. The key management server might be down, there might be a network-related problem preventing communication with the key server, or the security certificates used to authenticate with the key management server might have expired. Without access to the key management server, the node might not be able to restore authentication keys needed to unlock NSE drives or encryption keys needed to mount encrypted volumes. If the key management server is not available the next time this node boots, then the failure to restore the keys might prevent the node from booting successfully or prevent the encrypted volumes hosted on this node from coming online.

Corrective Action

Ensure that the key management server is online using the server's management interface. If the server is online, use the "network ping -lif <lif> -vserver <vserver> -destination <address>" command to verify that the node can communicate with the server. If this command indicates that the server is available, use the "security key-manager external show -vserver <vserver>" command to get the certificate names, and then check whether they are expired with the "security certificate show-user-installed -vserver <vserver> -cert -name <cert>" command. If so, install the updated certificates with the "security certificate install" and "security key-manager external modify" commands.

Syslog Message

The external key management server "%s" is not available for Vserver "%s", status: "%s".

Parameters

address (STRING): IP address of the key management server.
vserver (STRING): Name of the Vserver where the key management server is configured.
keyserver_status (STRING): Status of the key management server.

km.mcc events

km.mcc.okm.hierarchy.bad

Severity

ALERT

Description

This message occurs in a MetroCluster(tm) configuration, when one or both clusters have been configured with the Onboard Key Manager, but one or both of the Onboard Key Manager key hierarchies are corrupted. Specifically, the 'hashed_pass' object does not contain the same value in each Onboard Key Manager key hierarchy.

Corrective Action

Reboot each of the nodes in the MetroCluster configuration.

Syslog Message

This cluster is part of a MetroCluster configuration. The Onboard Key Manager key hierarchy on one or both of the clusters is corrupted. The replication subsystem has failed to update the 'hashed_pass' field in the 'cluster_kdb' table.

Parameters

(None).

km.mcc.okmkey.mismatch

Severity

ALERT

Description

This message occurs in a NetApp MetroCluster configuration, where both peer clusters are configured with Onboard Key Manager (OKM) and the lists of OKM hierarchy keys on the peer clusters are not consistent. A mismatch in the OKM hierarchy keys can lead to a failure during a reboot or future switchover/switchback event.

Corrective Action

Contact NetApp technical support.

Syslog Message

This cluster is part of a MetroCluster configuration. The list of OKM hierarchy keys on one or both of the clusters is potentially corrupted.

Parameters

(None).

km.mcc.svmkek.missing.local

Severity

ALERT

Description

This message occurs in a NetApp MetroCluster configuration, where both peer clusters are configured with Onboard Key Manager (OKM) and an SVM key encryption key is created on the remote peer, but due to various conditions, is not replicated to the local cluster. Creation of a new SVM key encryption key (KEK) on the local cluster is prevented to avoid failure during a reboot or future switchover/switchback event.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

This cluster is part of a MetroCluster configuration. An SVM key encryption key created on the remote cluster has not been replicated to the local cluster.

Parameters

(None).

km.okmdb events

km.okmdb.read.failed

Severity

ALERT

Description

This message occurs when a read of the Onboard Key Manager's database file fails. This may occur when the Onboard Key Manager has been configured to use a USB based mount-point and the USB device has not been mounted on the node.

Corrective Action

Check that the USB device is attached to the node.

Syslog Message

The system is not able to read from the Onboard Key Manager's database file.

Parameters

(None).

km.okmdb.write.failed

Severity

ALERT

Description

This message occurs when a write to the Onboard Key Manager's database file fails. This may occur when the Onboard Key Manager has been configured to use a USB based mount-point and the USB device has either not been mounted on the node or the USB device is write-protected.

Corrective Action

Check that the USB device is attached to the node and that it is not write-protected.

Syslog Message

The system is not able to write to the Onboard Key Manager's database file.

Parameters

(None).

km.onboard events

km.onboard.ccmode.wrongpass

Severity

NOTICE

Description

This message occurs when a cluster administrator supplies the wrong Onboard Key Manager cluster-wide passphrase more than three times in a row while attempting to enable Common Criteria (CC) mode.

Corrective Action

(None).

Syslog Message

The Onboard Key Manager cluster-wide passphrase has been entered incorrectly %s times by user "%s" while attempting to enable Common Criteria mode.

Parameters

username (STRING): Name of the user who issued the command to enable CC mode.
failure_count (STRING): Number of sequential times that the cluster-wide passphrase has been entered incorrectly.

km.restore events

km.restore.invalid.key

Severity

ALERT

Description

This message occurs when the key manager attempts to restore a key which has an invalid length.

Corrective Action

Run the "security key-manager restore" command to restore keys from external key servers.

Syslog Message

ONTAP has attempted to restore an %s key which has an invalid key length. Vserver: %s, Key ID: %s, Key server: %s.

Parameters

keyType (STRING): Key type (NSE, AES, XTS) that has invalid length.
vserverName (STRING): Vserver name.
keyId (STRING): Key ID of the key being restored.
keyServer (STRING): Key server from which the key is being restored.

km.run events

km.run.external.setup

Severity

ERROR

Description

This message occurs when a node successfully performs a join operation to join a cluster, but the other nodes in the cluster have the External Key Manager configured and the new node does not. The new node cannot perform External Key Manager-related tasks, such as creating encrypted volumes, until it has the

External Key Manager configured.

Corrective Action

Set up the External Key Manager on the new node by using the "security key-manager setup" command.

Syslog Message

External Key Manager setup required after the cluster "%s" operation for node "%s", serial "%s".

Parameters

operation_type (STRING): Type of cluster operation.
node (STRING): Name of the node that successfully joined the cluster.
serial (STRING): System serial number of the node that successfully joined the cluster.

km.run.extrnl.enable.needed

Severity

ALERT

Description

This message occurs when a cluster in a MetroCluster(tm) configuration has configured external key management via the "security key-manager external enable -key-servers <ip_address:port> -client-cert <client_cert_name> -server-ca-certs <server_ca_cert_name>" command. This is an alert that the external key management configuration on the two clusters is not consistent, and that the "security key-manager external enable -key-servers <ip_address:port> -client-cert <client_cert_name> -server-ca-certs <server_ca_cert_name>" command" should be run on the local cluster or peer cluster, specifying the same set of key servers. Otherwise, encrypted volumes and NSE drives will not come online after a future switchover or switchback event. This message will be generated on both the local cluster and the peer cluster.

Corrective Action

Run the "security key-manager external enable" command on the local cluster or the peer cluster (identified in the "cluster" parameter), specifying the same set of configured key servers, to make the external key management consistent.

Syslog Message

The external key management configuration is not consistent between the local cluster and the peer cluster of the MetroCluster configuration. This can lead to a failure during a future switchover or switchback event. Synchronize the configuration on the %s cluster.

Parameters

cluster (STRING): Local cluster or peer cluster on which to run the command.

km.run.extrnl.setup.needed

Severity

ALERT

Description

This message occurs when a cluster in a MetroCluster(tm) configuration has configured external key management via the "security key-manager setup" command. This is an alert that the external key management configuration on the two clusters is not consistent, and that the "security key-manager setup" command should be run on the local cluster or peer cluster. Otherwise, encrypted volumes and NSE drives

will not come online after a future switchover or switchback event. This message will be generated on both the local cluster and the peer cluster.

Corrective Action

Run the "security key-manager setup" command on the local cluster or the peer cluster (identified in the "cluster" parameter) to make the external key management configurations consistent.

Syslog Message

The external key management configuration is not consistent between the local cluster and the peer cluster of the MetroCluster configuration. This can lead to a failure during a future switchover or switchback event. Synchronize the configuration on the %s cluster.

Parameters

cluster (STRING): Local cluster or peer cluster on which to run the command.

km.run.onboard.setup

Severity

ERROR

Description

This message occurs when a node successfully performs a join operation to join a cluster, but the other nodes in the cluster have the Onboard Key Manager configured and the new node does not. The new node cannot perform the Onboard Key Manager-related tasks, such as creating encrypted volumes, until it has the Onboard Key Manager configured.

Corrective Action

Set up the Onboard Key Manager on the new node by using the "security key-manager setup" command.

Syslog Message

The Onboard Key Manager setup required after the cluster "%s" operation for node "%s", serial "%s".

Parameters

operation_type (STRING): Type of cluster operation.
node (STRING): Name of the node that successfully joined the cluster.
serial (STRING): System serial number of the node that successfully joined the cluster.

km.run.onboard.setup.needed

Severity

ALERT

Description

This message occurs when a cluster in a MetroCluster(tm) configuration has either configured the Onboard Key Manager via the "security key-manager setup" command or has reconfigured the cluster passphrase via the "security key-manager update-passphrase" command. This is an alert that the onboard key hierarchies on the two clusters are not consistent, and that the "security key-manager setup -sync -metrocluster-config yes" command should be run on the local cluster or peer cluster. Otherwise, a future switchover or switchback event could fail. This message will be generated on both the local cluster and the peer cluster.

Corrective Action

Run the "security key-manager setup -sync-metrocluster-config yes" command on the local cluster or the peer cluster (identified in the "cluster" parameter) to make the two onboard key hierarchies consistent.

Syslog Message

The Onboard Key Manager configuration is not consistent between the local cluster and the peer cluster of the MetroCluster configuration. This can lead to a failure during a future switchover or switchback event. Synchronize the configuration on the %s cluster.

Parameters

cluster (STRING): Local cluster or peer cluster on which to run the command.

km.run.onboard.sync.needed

Severity

ALERT

Description

This message occurs when a cluster in a MetroCluster(tm) configuration has either configured the Onboard Key Manager via the "security key-manager onboard enable" command or has reconfigured the cluster passphrase via the "security key-manager onboard update-passphrase" command. This is an alert that the onboard key hierarchies on the two clusters are not consistent, and that the "security key-manager onboard sync" command should be run on the local cluster or peer cluster. Otherwise, a future switchover or switchback event could fail. This message will be generated on both the local cluster and the peer cluster.

Corrective Action

Run the "security key-manager onboard sync" command on the local cluster or the peer cluster (identified in the "cluster" parameter) to make the two onboard key hierarchies consistent.

Syslog Message

The Onboard Key Manager configuration is not consistent between the local cluster and the peer cluster of the MetroCluster configuration. This can lead to a failure during a future switchover or switchback event. Synchronize the configuration on the %s cluster.

Parameters

cluster (STRING): Local cluster or peer cluster on which to run the command.

km.volume events

km.volume.mount.fail

Severity

ALERT

Description

This message occurs during the recovery of the key manager when a volume is placed online, but fails to mount. Volumes need to be mounted manually.

Corrective Action

The volume needs to be mounted manually with the provided junction using the "volume mount" command.

Syslog Message

Vserver "%s" failed to mount volume: "%s" to junction path: "%s" during key manager recovery.

Parameters

vserver (STRING): Name of the Vserver that owns the volumes being placed online.
volume (STRING): Name of the the volume being placed online.
junction (STRING): Name of the junction path to mount.

km.volume.mount.mismatch

Severity

ALERT

Description

This message occurs during recovery of the key manager when a junction path cannot identify the volume to mount. Pair the supplied junction with its volume and mount manually.

Corrective Action

The volumes are online but need to be mounted manually using the "volume mount" command.

Syslog Message

During health monitor recovery of the key manager on Vserver "%s", the junction path "%s" cannot be associated with the volume to mount.

Parameters

vserver (STRING): Name of the Vserver that owns the volume that could not be mounted.
junction (STRING): Name of the junction path to mount.

kmip2 events

kmip2.cannot events

kmip2.cannot.import.MROOTAK

Severity

ALERT

Description

This message occurs when the KMIP2 client cannot import the MROOT-AK key from a Key Management Interoperability Protocol (KMIP) key server. A key was retrieved from a KMIP key server, but an error occurred when trying to add the key to ONTAP®. The node fails the boot up process when this happens.

Corrective Action

Reboot the node. If the issue persists, contact NetApp technical support for assistance.

Syslog Message

KMIP2 client fails to import MROOT-AK from KMIP key server. Error: %d.

Parameters

err (INT): Error code from system call to sysctlbyname().

kmip2.cannot.import.NSE.key

Severity

ALERT

Description

This message occurs when the KMIP2 client cannot import an NSE key from a KMIP key server. A key was retrieved from a KMIP key server, but an error occurred when trying to add the key to an ONTAP® data structure.

Corrective Action

Run the "security key-manager restore" command to restore keys from external key servers.

Syslog Message

KMIP2 client failed to import NSE key from KMIP key server, error: %d

Parameters

err (INT): Error code from system call to sysctlbyname().

kmip2.cannot.import.NVE.key

Severity

ALERT

Description

This message occurs when the KMIP2 client cannot import an NVE key from a KMIP key server. A key was retrieved from a KMIP key server, but an error occurred when trying to add the key to an ONTAP® data

structure.

Corrective Action

Run the "security key-manager restore" command to restore keys from external key servers.

Syslog Message

KMIP2 client failed to import NVE key from KMIP key server, error: %d

Parameters

err (INT): Error code from system call to sysctlbyname().

kmip2.cannot.read.client.cert

Severity

ALERT

Description

This message occurs when the client certificate cannot be read. On a Cloud ONTAP® system, this message indicates one of the following: 1) A request to create an encrypted aggregate will not succeed because the key cannot be sent to the external KMIP server, or 2) The request to retrieve a key from the external KMIP server will fail. In this case, the encrypted aggregate will not be able to be mounted. On a NSE system, this message indicates one of the following: 1) A request to re-key a NSE drive will not succeed because the key cannot be sent to the external KMIP server, or 2) The ability to read/write data to/from a NSE drive might be impacted if power to the drive or to the disk shelf is lost.

Corrective Action

Examine the KMIP client certificate and ensure that the certificate has been created properly.

Syslog Message

KMIP Failed to read client certificate with error: %s

Parameters

err (STRING): KMIP error code.

kmip2.cannot.read.private.key

Severity

ALERT

Description

This message occurs when the client private key certificate can't be read. On a Cloud ONTAP® system, this message indicates one of the following: 1) A request to create an encrypted aggregate will not succeed because the key cannot be sent to the external KMIP server, or 2) The request to retrieve a key from the external KMIP server will fail. In this case, the encrypted aggregate will not be able to be mounted. On a NSE system, this message indicates one of the following: 1) A request to re-key a NSE drive will not succeed because the key cannot be sent to the external KMIP server, or 2) The ability to read/write data to/from a NSE drive might be impacted if power to the drive or to the disk shelf is lost.

Corrective Action

Examine the KMIP client private certificate and ensure that the certificate has been created properly.

Syslog Message

KMIP Failed to read client private certificate with error: %s

Parameters

err (STRING): KMIP error code.

kmip2.invalid events

kmip2.invalid.key.length

Severity

ALERT

Description

This message occurs when ONTAP cannot push a key to a KMIP key server because the key has an invalid length.

Corrective Action

(None).

Syslog Message

ONTAP failed to push an %s key to a KMIP key server due to invalid key length. Vserver Name: %s, Key ID: %s.

Parameters

keyType (STRING): Key type (NSE, AES, XTS) that has invalid length.
vserverName (STRING): Vserver name.
keyID (STRING): Key ID of key being pushed to key server.

kmip2.ssl events

kmip2.ssl.cannot.connect

Severity

ALERT

Description

This message occurs when a KMIP SSL/TLS connection error is detected in either a Cloud ONTAP system with encrypted aggregates or a NSE system. On a Cloud ONTAP® system, this message indicates one of the following: 1) A request to create an encrypted aggregate will not succeed because the key cannot be sent to the external KMIP server, or 2) The request to retrieve a key from the external KMIP server will fail. In this case, the encrypted aggregate will not be able to be mounted. On a NSE system, this message indicates one of the following: 1) A request to re-key a NSE drive will not succeed because the key cannot be sent to the external KMIP server, or 2) The ability to read/write data to/from a NSE drive might be impacted if power to the drive or to the disk shelf is lost.

Corrective Action

Examine the KMIP certificates and ensure that the certificates have been created properly.

Syslog Message

Unable to make SSL/TLS connection to KMIP server. Error: %s

Parameters

err (STRING): KMIP error code with details.

krb events

krb.config events

krb.config.updateFail

Severity

ERROR

Description

The CIFS server's security settings could not be written to the configuration file on this node.

Corrective Action

Modify any of the 'vserver cifs security' fields using the 'vserver cifs security modify' command, which will attempt to write to the configuration file again on every node. Change the setting back to its original value if desired. Afterward, verify that the event log does not contain any new instances of this error.

Syslog Message

The CIFS server's security settings could not be written to the configuration file on this node.

Parameters

(None).

ktls events

ktls.badauth events

ktls.badAuth

Severity

NOTICE

Description

This message occurs when the system receives a TLS message with bad 'authentication' data. The connection is closed. It might indicate that this system is under attack.

Corrective Action

ONTAP software automatically closes the connection from which this incorrect authentication information was received. If this message is repeatedly generated from the same internet address, it might indicate that this system is under attack.

Syslog Message

ONTAP received a TLS message with incorrect authentication at local address %s local port %d from remote address %s remote port %d via IPspace %d.

Parameters

localAddr (STRING): Full internet address of the local end of this session.
localPort (INT): Local port number that was being reached.
remoteAddr (STRING): Full internet address of the remote end of this session.
remotePort (INT): Remote port number that sent the erroneous data.
IPspace (INT): IPspace in which the remote address was reached.

ktls.cnxnhandshakelimit events

ktls.cnxnHandshakeLimit

Severity

NOTICE

Description

This message occurs when the concurrent TLS connection handshake limit is reached. Any new TLS connection request will fail and an error status will be returned.

Corrective Action

Reduce the encrypted connection load on ONTAP to avoid reaching the maximum concurrent TLS handshake limit.

Syslog Message

ONTAP reached the maximum limit of %d concurrent TLS connection handshakes. If this limit is reached, subsequent TLS connections will fail.

Parameters

    maxTLSConnHandles (INT): Maximum number of concurrent TLS connection handshakes.

ktls.failed events

ktls.failed

Severity

    NOTICE

Description

    This message occurs when several successive Transport Layer Security (TLS) connections with a remote system have failed.

Corrective Action

    Corrective actions will necessarily depend on what condition is being reported.

Syslog Message

    "The TLS connections have failed several times with remote host '%s' in IPspace '%s', for which the latest reason given is: %s."

Parameters

    peer (STRING): Network address of the remote peer.
    ipsname (STRING): IPspace within which the network address is defined.
    reason (STRING): Reason for failure.

ktls.health events

ktls.health.actionQGrowing

Severity

    NOTICE

Description

    This message occurs when the depth of the action queue in the ktlsd subsystem is increasing in the majority of time intervals. It is a potential indication of back-pressure accumulating within ktlsd or the kernel.

Corrective Action

    (None).

Syslog Message

    "The depth of the action queue in the ktlsd subsystem has trended upward over the last "%d" intervals of" %d" seconds."

Parameters

    intervalQuantity (INT): Number of intervals over which the problem was observed.
    intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.actionQHigh

Severity

NOTICE

Description

This message occurs when the depth of the action queue in the ktlsd subsystem accounts for a significant percentage of our total available handshake slots. It is a potential indication of back-pressure accumulating within ktlsd or the kernel.

Corrective Action

(None).

Syslog Message

"The depth of the action queue in the ktlsd subsystem has been at an elevated level over the last %d intervals of %d seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.backoffGrowing

Severity

NOTICE

Description

This message occurs when the number of backoffs in the ktlsd subsystem is increasing in the majority of time intervals. It is most likely an indication that handshake timeouts are occurring frequently.

Corrective Action

(None).

Syslog Message

"The number of self-imposed backoffs in the ktlsd subsystem has trended upward over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.highStress

Severity

ALERT

Description

This message occurs when a combination of indicators suggest high stress within the Kernel Transport Layer Security (KTLS) subsystem. This subsystem does not perform adequately as a consequence.

Corrective Action

There might be a variety of potential corrective actions. The first course of action should be to check for other ktls.health.* events around the same time. These might have their own guidance. In general it is likely that the resolution involves reducing the inbound load on KTLS, which requires different steps depending on the feature.

Syslog Message

"The KTLS subsystem is exhibiting signs of high stress."

Parameters

(None).

ktls.health.inactiveGrowing

Severity

NOTICE

Description

This message occurs when the total length of time handshakes spend in an active state has been increasing in the majority of time intervals.

Corrective Action

(None).

Syslog Message

"The inactive period for TLS handshakes has trended upward over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.latencyGrowing

Severity

NOTICE

Description

This message occurs when the latency of handshakes has been increasing in the majority of time intervals.

Corrective Action

(None).

Syslog Message

"The latency of TLS handshakes has trended upward over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.lowCompletion

Severity

ERROR

Description

This message occurs when a significant percentage of handshakes initiated in the ktlsd subsystem over an interval of time do not succeed.

Corrective Action

There might be a variety of potential corrective actions. Any ktls.failed events generated around the same time contain a "reason" parameter which provides a good starting point for probable causes of this condition.

Syslog Message

"A high percentage of handshakes initiated in the ktlsd subsystem over the last "%d" intervals of "%d" seconds have not completed successfully."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.startLatencyHigh

Severity

NOTICE

Description

This message occurs when the amount of time handshakes are spending in the start queue in the ktlsd subsystem is at an elevated level over some time intervals. It is a potential indication of back-pressure accumulating within ktlsd.

Corrective Action

(None).

Syslog Message

"The amount of time handshakes have spent in the start queue of the ktlsd subsystem has been at an elevated level over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.startQGrowing

Severity

NOTICE

Description

This message occurs when the depth of the start queue in the ktlsd subsystem is increasing in the majority of time intervals. It is a potential indication of back-pressure accumulating within ktlsd.

Corrective Action

(None).

Syslog Message

"The depth of the start queue in the ktlsd subsystem has trended upward over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.startQHigh

Severity

NOTICE

Description

This message occurs when the depth of the start queue in the ktlsd subsystem accounts for a significant percentage of total available handshake slots. It is a potential indication of back-pressure accumulating within ktlsd.

Corrective Action

(None).

Syslog Message

"The depth of the start queue in the ktlsd subsystem has been at an elevated level over the last "%d" intervals of "%d" seconds."

Parameters

intervalQuantity (INT): Number of intervals over which the problem was observed.
intervalLength (INT): Length of the observation intervals for this problem, in seconds.

ktls.health.stress

Severity

ERROR

Description

This message occurs when a combination of indicators suggest moderate stress within the Kernel Transport Layer Security (KTLS) subsystem.

Corrective Action

There might be a variety of potential corrective actions. The first course of action should be to check for other ktls.health.* events around the same time. These might have their own guidance. In general it is likely that the resolution involves reducing the inbound load on KTLS, which requires different steps depending on the feature.

Syslog Message

"The KTLS subsystem is exhibiting signs of moderate stress."

Parameters

(None).

largevol events

largevol.remount events

largevol.remount.nfsclient

Severity

NOTICE

Description

This message occurs when the "is-large-size-enabled" property is set on a FlexVol volume or Flexgroup volume, which is NFS mounted for client access. Setting this field enables volumes to support large files, from 16TB to 128TB. If the volume has already been mounted via NFS, then the NFS client caches the older maximum file size, which is 16TB. For support of files up to 128TB to take effect, the NFS client needs to remount the volume. This issue does not occur if automount has been configured on NFS client to mount the volumes.

Corrective Action

To support 128TB as the maximum file size on the NFS client, stop the applications using the NFS mount, remount the FlexVol volume in the NFS client and then restart the applications. If the issue still persists, Contact NetApp technical support.

Syslog Message

Remount the volume on the NFS client.

Parameters

vvolname (STRING): Volume name.
vserver (STRING): Vserver name.

ldap events

ldap.false events

ldap.false.configs.removed

Severity

NOTICE

Description

This message occurs when the last system to be upgraded in a cluster removes LDAP configurations that were marked as disabled.

Corrective Action

(None).

Syslog Message

All LDAP configurations with the "-client-enabled" parameter set to "false" were removed.

Parameters

(None).

lib events

lib.nvtrace events

lib.nvtrace.syslog.relog.alert

Deprecated

This event is deprecated as of ONTAP 9.1.

Severity

ALERT

Description

This message occurs when the system sorts the syslog messages when syslog is not yet initialized, and the panic messages are relogged.

Corrective Action

(None).

Syslog Message

Relog syslog %s.

Parameters

data (STRING): Syslog data in NVRAM(Non Volatile RAM).

lic events

lic.cappool events

lic.cappool.reassign.abort

Severity

NOTICE

Description

This message occurs when the system aborts an operation of reassigning nodes to a different capacity pool license, because another reassignment operation to a different capacity pool license in the same request has failed.

Corrective Action

Look for the "lic.cappool.failed" event that occurred about the same time, which caused the reassignment operation to abort.

Syslog Message

"Capacity pool license reassignment is aborted for nodes ("%s") to serial number "%s" due to failure to reassign other nodes to serial number "%s"."

Parameters

aborted_node_names (STRING): Aborted list of node names.
aborted_pool_serial (STRING): Aborted capacity pool license serial number.
failed_pool_serial (STRING): Another reassignment operation to this capacity pool serial number has failed.

lic.cappool.reassign.done

Severity

NOTICE

Description

This message occurs when the system successfully completes an operation of reassigning nodes to a different capacity pool license.

Corrective Action

(None).

Syslog Message

"Capacity pool license reassignment successfully completed for nodes ("%s") to license serial number "%s"."

Parameters

node_names (STRING): List of node names that are reassigned to the new capacity pool license.
new_pool_serial (STRING): Capacity pool license serial number to which the nodes are reassigned.

lic.cappool.reassign.done.info

Severity

NOTICE

Description

This message occurs when the system successfully completes an operation of reassigning nodes to a different capacity pool license with with a non-critical error, which does not affect the outcome of the ultimate operation.

Corrective Action

(None).

Syslog Message

"Capacity pool license reassignment successfully completed for nodes ("%s") to license serial number "%s" with non-critical error "%s"."

Parameters

node_names (STRING): List of node names that are reassigned to the new capacity pool license.
new_pool_serial (STRING): Capacity pool license serial number to which the nodes are reassigned.
non_critical_error (STRING): Information about the non-critical error encountered during the reassignment operation.

lic.cappool.reassign.failed

Severity

ERROR

Description

This message occurs when operation of reassigning nodes to a different capacity pool license fails.

Corrective Action

Resolve the error, which should clearly indicate why the operation has failed. Follow the instructions shown on the ONTAP Select Deploy utility from which the operation was initiated.

Syslog Message

"Capacity pool license reassignemnt to license serial number "%s" failed for nodes ("%s") with error: %s"

Parameters

failed_pool_serial (STRING): Capacity pool license serial number to which the nodes failed to be reassigned.
failed_node_names (STRING): List of node names that failed to be reassigned to the new capacity pool license.
error (STRING): Reason for failure.

lic.cappool.reassign.start

Severity

NOTICE

Description

This message occurs when the system starts an operation of reassigning nodes to a different capacity pool license.

Corrective Action

(None).

Syslog Message

"Capacity pool license reassignment started for nodes ("%s") to license serial number "%s"."

Parameters

node_names (STRING): List of node names that are reassigned to the new capacity pool license.
new_pool_serial (STRING): Capacity pool license serial number to which the nodes are reassigned.

lic.lm events

lic.lm.server.not.configured

Severity

ALERT

Description

This message occurs when ONTAP® software is running in the capacity pools licensing model and there is no License Manager configuration available. Without the License Manager configuration, the system cannot create or expand an aggregate.

Corrective Action

Find the IP address of the ONTAP Select Deploy instance from which this ONTAP system was created. Use that IP address to manually configure the License Manager by using the "system license license-manager modify -host ip_address_of_license_manager" command. Verify that the correct License Manager is configured by using the "system license license-manger show" command. Use the "system license license-manager check" command to determine whether the License Manager is accessible. These commands are accessible through diagnostic privileges.

Syslog Message

"License Manager has not been configured for capacity pools."

Parameters

(None).

license events

license.capac events

license.capac.enforce

Severity

ALERT

Description

This message occurs when the total storage capacity of all disks currently assigned to your system exceeds the limits of your capacity license. The system will shut down within the next 72 hours.

Corrective Action

To avoid disruption, either contact your sales representative immediately to obtain a license with a larger maximum capacity, or reduce the storage capacity of the system.

Syslog Message

"Storage capacity is at %llu GB, max allowed is %llu GB. Forced system shutdown is imminent."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
max_capacity (LONGINT): Maximum storage capacity supported under the current license, in gigabytes.

license.capac.eval

Severity

ALERT

Description

This message occurs when a capacity license intended only for evaluation purposes is approaching its end date. This expiration might result in the forced shutdown of the system.

Corrective Action

To avoid any disruption, copy the contents of the volumes of this system to a new location. Contact your sales representative to purchase a version of the system.

Syslog Message

"The system have %llu GB installed. Evaluation license ends on %s."

Parameters

current_capacity (LONGINT): Current storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.eval.ending

Severity

ERROR

Description

This message occurs when a capacity license intended only for evaluation purposes is approaching its end date. It will soon not be possible to either create data aggregates, expand them, mirror them, or bring them online.

Corrective Action

To avoid any disruption, copy the contents of the volumes of this system to a new location. Contact your sales representative to purchase a version of the system.

Syslog Message

"The system is using %llu GB. Evaluation license ends on %s."

Parameters

current_capacity (LONGINT): Current storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.eval.enforce

Severity

ALERT

Description

This message occurs when the evaluation period has expired. Creating aggregates, extending them, mirroring them, and bringing them online will be prohibited. However, if the effective version of the cluster precedes the version of ONTAP® software on this node, any node with this condition might shut down within the next 72 hours.

Corrective Action

To avoid any disruption, move or copy volumes as needed from this system. Contact your sales representative immediately to purchase a version of this system.

Syslog Message

"Evaluation version of capacity license expired. Capacity at %llu GB. Certain aggregate operations are not allowed after %s."

Parameters

current_capacity (LONGINT): Current storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.eval.shutdown

Severity

EMERGENCY

Description

This message occurs when the evaluation period has expired. The system will be shut down within the next 10 minutes.

Corrective Action

Contact your sales representative immediately to purchase a version of this system. Restart the system as needed to move or copy volumes.

Syslog Message

"Storage capacity is at %llu GB. Evaluation license ends on %s. Forced system shutdown is imminent."

Parameters

current_capacity (LONGINT): Current storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.invalidated

Severity

ERROR

Description

This message occurs when the system determines that its existing capacity license does not cover its current used capacity during an attempted upgrade. To allow the upgrade to proceed, the system has deleted the license.

Corrective Action

Either delete enough data aggregates to bring the system into compliance with the existing capacity license, or contact your sales representative immediately to obtain a new license with a sufficient capacity value. In either case, apply the license after the upgrade is successfully completed.

Syslog Message

"Storage capacity now %llu GB, max allowed is %llu GB. Capacity license removed for upgrade."

Parameters

current_capacity (LONGINT): Current capacity of the system, in gigabytes.
max_capacity (LONGINT): Maximum usable storage capacity supported under the current license, in gigabytes.

license.capac.promo.failed

Severity

ERROR

Description

This message occurs when an evaluation version of ONTAP® Select has failed to be promoted to production.

Corrective Action

Remove the license used during promotion by using the "system license clean-up -unused true" command, and then retry promotion.

Syslog Message

"ONTAP Select promotion from evaluation to production was unsuccessful. Failure reason: %s."

Parameters

reason (STRING): Reason for promotion failure.

license.capac.promo.incomp

Severity

ALERT

Description

This message occurs when an evaluation version of ONTAP® Select has fails to automatically reboot to complete promotion.

Corrective Action

Manually reboot the node to complete the evaluation to production promotion process.

Syslog Message

"ONTAP Select promotion from evaluation to production failed to automatically reboot node to complete promotion. Node will use license (serial number: %s) after the node is manually rebooted."

Parameters

license_serial_number (STRING): License serial number of the license intended to be used by the node after promotion.

license.capac.promo.partial

Severity

ALERT

Description

This message occurs when an evaluation version of ONTAP® Select has partially completed the promotion process.

Corrective Action

Manually reboot the node to complete the evaluation to production promotion process.

Syslog Message

"ONTAP Select promotion from evaluation to production is incomplete. Node will use license (serial number: %s) after the node reboots."

Parameters

license_serial_number (STRING): License serial number of the license intended to be used by the node after promotion.

license.capac.promoted

Severity

NOTICE

Description

This message occurs when an evaluation version of ONTAP® Select has been successfully promoted to production.

Corrective Action

(None).

Syslog Message

"ONTAP Select promotion from evaluation to production was successful with a license (serial number: %s)"

Parameters

license_serial_number (STRING): License serial number being used by the promoted node.

license.capac.shutdown

Severity

EMERGENCY

Description

This message occurs when the total storage capacity of all disks currently assigned to your system has exceeded the limits of your capacity license. The system will shut down within the next 10 minutes.

Corrective Action

Contact your sales representative immediately to obtain your capacity license. Restart the system as needed to complete the license installation.

Syslog Message

"Storage capacity is at %llu GB, max allowed is %llu GB. Forced system shutdown is imminent."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
max_capacity (LONGINT): Maximum storage capacity supported under the current license, in gigabytes.

license.capac.unl.ending

Severity

ERROR

Description

This message occurs when a valid capacity license has not been installed. As a result, data aggregates cannot be created, expanded, mirrored, or brought online.

Corrective Action

Contact your sales representative immediately to obtain your capacity license, to avoid any disruption.

Syslog Message

"Now using %llu GB of storage capacity. Certain aggregate operations are prohibited after %s. The grace period for installing a valid capacity license is ending soon."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
end_date (STRING): Date by which a valid license must be installed.

license.capac.unl.enforce

Severity

ALERT

Description

This message occurs when a valid capacity license has not been installed. The system will not permit the creation, expansion, or mirroring of aggregates, or bringing aggregates online. However, if the effective version of the cluster precedes the version of ONTAP® on this node, any node with this condition may forcibly shut down.

Corrective Action

Contact your sales representative immediately to obtain your capacity license, to avoid any disruption.

Syslog Message

"The grace period for installing a valid capacity license has ended. Storage capacity is at %llu GB. Certain aggregate operations are prohibited as of %s."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.unl.shutdown

Severity

EMERGENCY

Description

This message occurs when a valid capacity license has not been installed. The system will shut down within the next 10 minutes.

Corrective Action

Contact your sales representative immediately to obtain your capacity license. Restart the system as needed to complete the license installation.

Syslog Message

"Storage capacity is at %llu GB. License ends on %s. Forced system shutdown is imminent."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
end_date (STRING): Evaluation period end date.

license.capac.unlicensed

Severity

ALERT

Description

This message occurs when the system first detects that a valid capacity license has not been installed. As a result, data aggregates can be created, expanded, mirrored, and brought online only during the initial grace period. However, if the effective version of the cluster precedes the version of ONTAP® on this node, any node with this condition may be forcibly shut down after this grace period.

Corrective Action

To avoid any disruption, contact your sales representative immediately to obtain your capacity license.

Syslog Message

"No capacity license for system with %llu GB used. Certain aggregate operations are prohibited after %s."

Parameters

current_capacity (LONGINT): Current storage capacity of the system, in gigabytes.
end_date (STRING): Unlicensed grace period end date.

license.capac.valid

Severity

NOTICE

Description

This message occurs when a valid capacity license has been installed on your system.

Corrective Action

(None).

Syslog Message

"Capacity license allows %llu GB, you have %llu GB installed."

Parameters

max_capacity (LONGINT): Maximum storage capacity allowed under current license, in gigabytes.
current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.

license.capac.warning

Severity

NOTICE

Description

This message occurs when the total storage capacity of all disks currently assigned to your system is in danger of exceeding the limits of your current license. Exceeding this capacity limit might result in the forced shutdown of the system.

Corrective Action

To avoid disruption, either contact your sales representative immediately to obtain a license with a larger maximum capacity, or reduce the storage capacity of the system.

Syslog Message

"Storage capacity is at %llu GB, max allowed is %llu GB."

Parameters

current_capacity (LONGINT): Currently used storage capacity of the system, in gigabytes.
max_capacity (LONGINT): Maximum storage capacity supported under the current license, in gigabytes.

license.cappool events

license.cappool.aggr.noncomp

Severity

ALERT

Description

This message occurs when an aggregate does not comply with the current Capacity Pool entitlement, as determined by the Licensing Manager. In an HA configuration, noncompliant aggregates are prevented from being sent home during an HA takeover/giveback situation. In a non-HA configuration, these aggregates cannot be brought online if they are already offline.

Corrective Action

Use the "system license license-manager check" command to determine whether the License Manager is accessible. Use the "system license show-aggregates -compliant false" command to find all aggregates that do not comply. From the web interface of the ONTAP® Select Deploy® instance, check the Capacity Pool licensing status, and ensure that sufficient capacity remains within the capacity pool used by this instance of ONTAP. If the capacity is insufficient, reduce the usage by instances of ONTAP that use the pool (for example, by deleting aggregates). If no reduction is possible, Contact NetApp technical support..

Syslog Message

Aggregate %s (UUID: %s) is not compliant with current Capacity Pool entitlement.

Parameters

aggr_name (STRING): Name of the aggregate.
aggr_uuid (STRING): UUID of the aggregate.

license.cert events

license.cert.expired

Severity

ALERT

Description

This message occurs when the license validation certificate is expired. No new license can be validated.

Corrective Action

Contact your sales representative or reseller about renewing your license validation certificate.

Syslog Message

No new license can be validated. Certificate expired on %s.

Parameters

exp_date (STRING): Expiration date.

license.cert.expired.check

Severity

NOTICE

Description

This message occurs when the license validation certificate is near its expiration date. After the certificate expires, no new license can be validated.

Corrective Action

Contact your sales representative or reseller about renewing your license validation certificate.

Syslog Message

Certificate to validate licenses will expire on %s.

Parameters

exp_date (STRING): Expiration date.

license.check events

license.check.expired

Severity

ERROR

Description

This message occurs when the license checker determines that the Base license has expired. If this is the case, you cannot add nodes to the cluster

Corrective Action

Install a permanent Base license on this cluster.

Syslog Message

License Checking: Expired Base license (%s)

Parameters

error (STRING): Interpreted error string from the license validation check.

license.check.failed

Severity

ERROR

Description

This message occurs when the license checker has run and has been unable to validate the Base license due to an internal error. If there is not a valid Base license, then no additional nodes can be added to the cluster.

Corrective Action

Install a valid Base license on this cluster.

Syslog Message

License Checking: internal error validating Base license (%s)

Parameters

> **error** (STRING): Interpreted error string from the license validation check.

license.check.invalid

Severity

> ERROR

Description

> This message occurs when the license checker determines that the Base license is incorrect in some way. If Base license is invalid, you cannot add nodes to the cluster.

Corrective Action

> Install a valid Base license on this cluster.

Syslog Message

> License Checking: The Base license is invalid (%s)

Parameters

> **error** (STRING): Interpreted error string from the license validation check.

license.check.mirror

Severity

> ERROR

Description

> This message occurs when the license checker has run and has determined that at least one volume is being mirrored but there isn't a valid Mirror license installed.

Corrective Action

> Install a valid Mirror license on this cluster.

Syslog Message

> License Checking: Mirror License failure: (%s)

Parameters

> **volume** (STRING): The first volume detected that requires a Mirror license

license.check.missing

Severity

> ERROR

Description

> This message occurs when the license checker deterimines that the Base license is missing. If this is the case, you cannot add nodes to the cluster.

Corrective Action

> Reinstall the Base license.

Syslog Message

License Checking: Missing Base license

Parameters

(None).

license.check.nodes

Severity

ERROR

Description

This message occurs when the license checker determines that the number of nodes in the cluster exceeds the number of nodes allowed by the Base license

Corrective Action

Install a Base license with the correct node count, or remove nodes from the cluster using the unjoin command until the number of total nodes is equal to, or less than, the specified node count limit.

Syslog Message

License Checking: Current node count (%d) exceeds the licensed node limit (%d)

Parameters

nodecount (INT): Number of nodes detected in the cluster
nodelimit (INT): Number of nodes allowed by the Base license

license.check.nonodes

Severity

ERROR

Description

This message occurs when the license checker determines that it cannot retrieve the number of nodes in the cluster to compare against the Base license node count. If this is the case, then you cannot add nodes to the cluster.

Corrective Action

Re-install the Base license so that the node count is correctly reflected. If that fails to fix the problem please contact Customer Support.

Syslog Message

License Checking: Cannot to retrieve the number of nodes in the cluster.

Parameters

(None).

license.check.warn.expired

Severity

ERROR

Description

This message occurs when the license checker determines that a license has expired.

Corrective Action

Install a permanent license on this cluster.

Syslog Message

The license for package "%s" expired on %s.

Parameters

package (STRING): Name of the license package.
expiration (STRING): Expiration date.

license.check.warn.expiring

Severity

ERROR

Description

This message occurs when the license checker determines that a license is within a week of its expiration date.

Corrective Action

Install a permanent license on this cluster.

Syslog Message

The license for package "%s" expires on %s.

Parameters

package (STRING): Name of the license package.
expiration (STRING): Expiration date.

license.feat events

license.feat.delete.failed

Severity

ERROR

Description

This message occurs when the system cannot successfully delete a license for a feature. (This message is currently used only for FlexCache® licenses.)

Corrective Action

The feature might be vetoing deletion for specific, valid reasons (e.g., it is still in use), or it might be in a state that is inconsistent with deletion. Examine the error condition for more information. Contact NetApp technical support.

Syslog Message

License for feature %s and serial %s not deleted: %s.

Parameters

feature (STRING): Name of the feature.
serial (STRING): Serial number associated with the license.
reason (STRING): Error condition encountered.

license.feat.deleted

Severity

NOTICE

Description

This message occurs when the system deletes a license for a feature. (This message is currently used only for FlexCache® licenses.)

Corrective Action

(None).

Syslog Message

License deleted: feature %s, serial %s.

Parameters

feature (STRING): Name of the feature.
serial (STRING): Serial number associated with the license.

license.feat.install.failed

Severity

ERROR

Description

This message occurs when the system cannot successfully install a license for a feature. (This message is currently used only for FlexCache® licenses.)

Corrective Action

Check whether the feature is supported by the target instance of ONTAP® software. Check whether the target instance supports the change in the entitlements as specified by the license. Contact NetApp technical support.

Syslog Message

License for feature %s and serial %s not installed: %s.

Parameters

feature (STRING): Name of the feature.
serial (STRING): Serial number associated with the license.
reason (STRING): Error condition encountered.

license.feat.installed

Severity

NOTICE

Description

This message occurs when the system successfully installs a license for a feature. (This message is currently used only for FlexCache® licenses.)

Corrective Action

(None).

Syslog Message

License installed for feature %s: serial: %s, %s.

Parameters

feature (STRING): Name of the feature.
serial (STRING): Serial number associated with the license.
attrs (STRING): Attributes of interest for this license, listed as a colon-separated key-value pairs.

license.fpool events

license.fpool.changed

Severity

NOTICE

Description

This message occurs when the maximum storage capacity limit for FabricPool is changed.

Corrective Action

(None).

Syslog Message

"FabricPool entitlement: maximum capacity limit now allows %u TB."

Parameters

max_capacity (LONGINT): Current maximum limit supported under the current entitlement, in TB.

license.fpool.denied

Severity

NOTICE

Description

This message occurs when an attempt to alter the maximum storage capacity limit for FabricPool is denied by FabricPool.

Corrective Action

(None).

Syslog Message

"FabricPool entitlement: maximum capacity limit not changed to %u from %u TB."

Parameters

requested_max_capacity (LONGINT): Requested maximum capacity supported, in TB.
current_max_capacity (LONGINT): Current maximum capacity limit supported under the current entitlement, in TB.

license.fpool.no.cloud

Severity

NOTICE

Description

This message occurs when an attempt to alter the maximum storage capacity limit for FabricPool is denied, because there is no support for licensing FabricPool directly on instances of Cloud ONTAP(tm).

Corrective Action

(None).

Syslog Message

"FabricPool entitlement: maximum capacity limit not changed to %u TB - licensing FabricPool directly on instances of Cloud ONTAP not supported."

Parameters

requested_max_capacity (LONGINT): Requested maximum capacity supported, in TB.

license.fpool.removed

Severity

NOTICE

Description

This message occurs when the license for FabricPool usage is deleted.

Corrective Action

(None).

Syslog Message

"FabricPool entitlement deleted."

Parameters

(None).

license.fpool.unsupported

Severity

NOTICE

Description

This message occurs when an attempt to alter the maximum storage capacity limit for FabricPool is denied, because FabricPool is not supported on this instance of ONTAP(tm).

Corrective Action

(None).

Syslog Message

"FabricPool entitlement: maximum capacity limit not changed to %u TB - feature is not supported."

Parameters

requested_max_capacity (LONGINT): Requested maximum capacity supported, in TB.

license.fpool.wrong.cluster

Severity

ERROR

Description

This message occurs when an attempt to alter the maximum storage capacity limit for FabricPool is rejected. The license used in the attempt contains an incompatible cluster ID.

Corrective Action

Determine the ID of the cluster by using the "cluster identity show" command. Within the license itself, determine the value of the "HostID" field. If the field exists, compare its value to the cluster ID. Confirm that these values match. If not, then the cluster is not the intended target of this license. Apply the license to the correct cluster if possible. For all other scenarios, contact NetApp technical support.

Syslog Message

"FabricPool entitlement: maximum capacity limit not changed to %u TB; license applies to cluster with ID %s."

Parameters

requested_max_capacity (LONGINT): Requested maximum capacity supported, in TB.
cluster_ID (STRING): Cluster ID as specified in license.

license.ontapi events

license.ontapi.eval

Severity

NOTICE

Description

This message occurs when ONTAPI enablement evaluation license is installed successfully.

Corrective Action

Contact your sales representative to get a license if you wish to continue using ONTAPI past this expiration date.

Syslog Message

ONTAPI enablement evaluation license installed. Expiration: "%s".

Parameters

expiration_date (STRING): Expiration date of ONTAPI enablement evaluation license.

license.ontapi.valid

Severity

NOTICE

Description

This message occurs when a valid ONTAPI enablement license has been installed on your system.

Corrective Action

(None).

Syslog Message

ONTAPI enablement license installed. Expiration: "%s".

Parameters

expiration_date (STRING): Expiration date of ONTAPI enablement license.

license.pool events

license.pool.sfo.gb.veto

Severity

ERROR

Description

This message occurs when a storage failover giveback is vetoed because the aggregate has no valid capacity lease from the capacity pool. This might be because the capacity pool license has expired, because there is not sufficient capacity in the pool, or because the License Manager is not accessible.

Corrective Action

If the node could not check the compliance status of an aggregate, check that the License Manager is accessible by using the "system license license-manager check" command. If the License Manager is not accessible, verify that it is up and running in ONTAP Select Deploy, and that there are no network connectivity issues. If an aggregate has been found to be out of compliance, verify on ONTAP Select Deploy that the capacity pool license has not expired, and that there is enough capacity remaining for the aggregate. For all other reasons, Contact NetApp technical support.

Syslog Message

SFO giveback vetoed. %s.

Parameters

reason (STRING): Explanation for the veto.

license.sfo events

license.sfo.gb.veto

Severity

ERROR

Description

This message occurs when a storage failover giveback is vetoed because a select capacity license has not been installed and the license installation grace period has ended.

Corrective Action

Install a valid select capacity license, and then reissue the "storage failover giveback" command. Use the "system license show-status" command to determine which node is missing the capacity license.

Syslog Message

SFO giveback vetoed. Missing select capacity license.

Parameters

(None).

license.sfo.gb.veto.eval

Severity

ERROR

Description

This message occurs when a storage failover giveback is vetoed because the evaluation period for the ONTAP ® instance has ended.

Corrective Action

Contact your sales representative for further assistance.

Syslog Message

SFO giveback vetoed. Evaluation period ended.

Parameters

(None).

license.subscription events

license.subscription.enforcement

Severity

EMERGENCY

Description

This message occurs when your Cloud ONTAP® license subscription has expired but may still be renewed.

Corrective Action

Contact your sales representative to have your subscription reactivated.

Syslog Message

    %s

Parameters

    expiration_msg (STRING): Expiration message.

license.subscription.reminder

Severity

    NOTICE

Description

    This message occurs when your Cloud ONTAP® license subscription is going to expire soon.

Corrective Action

    Contact your sales representative to renew your subscription as soon as possible.

Syslog Message

    %s

Parameters

    reminder_msg (STRING): Reminder message.

license.subscription.warning

Severity

    ALERT

Description

    This message occurs when your Cloud ONTAP® license subscription is nearly expired.

Corrective Action

    Contact your sales representative to renew your subscription immediately, to avoid any disruption.

Syslog Message

    %s

Parameters

    warning_msg (STRING): Warning message.

license.term events

license.term.enforcement

Severity

    ALERT

Description

    This message occurs when your feature license has expired. The feature might no longer function.

Corrective Action

Contact your sales representative to have your feature license reactivated.

Syslog Message

%s

Parameters

enforcement_msg (STRING): Enforcement message.

license.term.reminder

Severity

NOTICE

Description

This message occurs when your feature license is going to expire soon.

Corrective Action

Contact your sales representative to renew your feature license as soon as possible.

Syslog Message

%s

Parameters

reminder_msg (STRING): Reminder message.

license.term.warning

Severity

ERROR

Description

This message occurs when your feature license has expired. The feature might stop working soon.

Corrective Action

Contact your sales representative to renew your feature license immediately to avoid any disruption.

Syslog Message

%s

Parameters

warning_msg (STRING): Warning message.

lifp events

lifp.net events

lifp.net.bdmismatch

Severity

ERROR

Description

This message occurs while assigning network ports to broadcast domains, when LIF Placement subnet discovery finds a port that is assigned to a broadcast domain that is different from the broadcast domain to which other ports in the same physical broadcast domain are assigned.

Corrective Action

Ports assigned to broadcast-domains need to be corrected by the admin. The ports in one physical broadcast domain must be assigned to a single broadcast-domain.

Syslog Message

In IPspace %s, other ports in the same physical broadcast domain are assigned to broadcast-domain %s but %s is assigned to broadcast-domain %s.

Parameters

ipspacename (STRING): IPspace name.
broadcastdomainOnOtherPorts (STRING): Broadcast-domain name.
port (STRING): Port name.
broadcastdomainOnCurrentPort (STRING): Broadcast-domain name.

lldp events

lldp.receive events

lldp.receive.maximum.entries

Severity

NOTICE

Description

This message occurs when the LLDP (Link Layer Discovery Protocol) daemon running on the storage controller receives more unique neighbor advertisements than it can cache. The storage controller can cache 64 unique entries and accommodates new entries after that by removing the oldest entries first. This event is typically observed when connected to Ethernet networks that do not support LLDP broadcasts.

Corrective Action

If the storage system is connected to an Ethernet network that is forwarding LLDP advertisements, disable LLDP on the storage system or disable forwarding LLDP advertisements on the switch.

Syslog Message

LLDP maximum entries exceeded, oldest record replaced by new record received on port %s.

Parameters

port_name (STRING): The network port that received the LLDP advertisement.

lmgr events

lmgr.aggr events

lmgr.aggr.CA.locks.dropped

Severity

EMERGENCY

Description

This message occurs when locks established through CIFS Continuously Available (CA) shares on an aggregate are dropped after takeover, giveback, or aggregate relocation. This causes clients to see a service disruption on the aggregate.

Corrective Action

Confirm that the aggregate is online by using the 'aggr show -aggregate [name of the aggregate] -fields state' command. Then reopen files to reestablish CA locks. For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "lmgr.aggr.CA.locks.dropped" keyword.

Syslog Message

Continuously Available (CA) locks were dropped on aggregate %s because %s.

Parameters

aggregate (STRING): Name of the aggregate where CA locks were dropped.
reason (STRING): Reason for dropping CA locks, such as "remote lock synchronization is in progress".

lmgr.badstructure events

lmgr.badStructure.found

Severity

ERROR

Description

This event is issued whenever the multi-protocol lock manager finds a bad file pointer and turns off the logging of lock manipulation to preserve trace information. This information can be of use during core analysis.

Corrective Action

(None).

Syslog Message

bad file pointer found, preserving trace information

Parameters

(None).

lmgr.ca events

lmgr.CA.recons.mcc.veto

Severity

ALERT

Description

This message occurs when the system vetoes MetroCluster(tm) switchback or negotiated switchover because one of the volumes affected by the switch has CIFS Continuously Available (CA) locks that are still being reconstructed.

Corrective Action

Retry the switchback or negotiated switchover after verifying that lock reconstruction is complete by using the 'debug locks reconstruction show' diagnostic privilege command.

Syslog Message

Vetoed MetroCluster switchback or negotiated switchover because CA lock reconstruction is in progress.

Parameters

(None).

lmgr.cb events

lmgr.cb.waiting.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager waiting lock callback object cannot be allocated due to reaching the limit for waiting lock callback objects in the associated pool. It is possible there are too many clients holding locks on files where other clients want locks. Clients will have problems accessing or locking files through NAS protocols while at or above the waiting lock callback object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of waiting callback objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: files %u/%u hosts %u/%u locks %u/%u owners %u/%u

Parameters

cb_waiting_total (INT): Number of allocated waiting callback objects in the pool.
cb_waiting_limit (INT): Allocated callback waiting objects limit for the pool.
pool_name (STRING): Name of the limit pool.

files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.
owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.

lmgr.delegations events

lmgr.delegations.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager WAN FlexCache® delegation object cannot be allocated due to reaching the limit for WAN FlexCache delegation objects in the associated pool. It is possible that the system is overloaded. Clients will have problems accessing files through NAS protocols using a FlexCache over a WAN to an origin volume on the node generating this message while at or above the WAN FlexCache delegation object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of WAN FlexCache delegation objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: files %u/%u hosts %u/%u locks %u/%u owners %u/%u

Parameters

delegations_total (INT): Number of allocated WAN FlexCache delegation objects in the pool.
delegations_limit (INT): Allocated WAN FlexCache delegation objects limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.
owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.

lmgr.enable events

lmgr.enable.remote.lock.space.error

Severity

NOTICE

Description

This message occurs when the enabling of the remote lock functionality is unsuccessful due to insufficient storage space.

Corrective Action

Run "lmgr enable_remote_lock <DSID> -multipart true" command from the diagnostic privilege level for enabling remote lock functionality manually.

Syslog Message

Remote lock functionality could not be enabled on volume '%s%s%s' (DSID %llu) due to insufficient storage space. Please consider freeing up some space and then attempt to enable it manually.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
volDsid (LONGINT): Data set identifier (DSID) of the volume.

lmgr.files events

lmgr.files.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager file object cannot be allocated due to reaching the limit for file objects in the associated pool. It is possible that the system is overloaded. Clients will have problems accessing files through NAS protocols while at or above the file object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of file objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: hosts %u/%u locks %u/%u owners %u/%u.

Parameters

    files_total (INT): Number of allocated files in the pool.

    files_limit (INT): Allocated files limit for the pool.

    pool_name (STRING): Name of the limit pool.

    hosts_total (INT): Number of allocated hosts in the pool.

    hosts_limit (INT): Allocated hosts limit for the pool.

    locks_total (INT): Number of allocated locks in the pool.

    locks_limit (INT): Allocated locks limit for the pool.

    owners_total (INT): Number of allocated owners in the pool.

    owners_limit (INT): Allocated owners limit for the pool.

lmgr.gb events

lmgr.gb.CA.locks.lost

Severity

    NOTICE

Description

    This message occurs when giveback veto is overridden. Locks established through CIFS continuously available (CA) shares on the aggregate being given back are dropped because the giveback occurs before lock sync completion.

Corrective Action

    (None).

Syslog Message

    Dropping partner aggregate locks during lock sync on aggregate %s.

Parameters

    aggr (STRING): Name of the aggregate for which CA locks are lost.

lmgr.gb.CA.locks.may.lost

Severity

    ALERT

Description

    This message occurs when giveback veto is overridden. Locks established using CIFS continuously available (CA) shares on the aggregate being given back might be dropped, because giveback commit occurs simultaneously with lock sync completion.

Corrective Action

    (None).

Syslog Message

    Continuously Available (CA) locks may be lost on aggregate %s due to forced giveback commit occurring simultaneously with lock sync completion.

Parameters

aggr (STRING): Name of the aggregate for which CA locks might be lost.

lmgr.hostfile events

lmgr.hostfile.cleared

Severity

INFORMATIONAL

Description

This message occurs when the volume lock manager hosts file is unusable. In such cases, the hosts files are cleared and reinitialized.

Corrective Action

None.

Syslog Message

Clearing lock manager file %s on volume %s due to error: %s.

Parameters

file_name (STRING): Name of the file that is being cleared.
vol (STRING): Name of the volume.
error (STRING): Error code.

lmgr.hostfile.create.abort

Severity

ERROR

Description

This message occurs when the volume lock manager fails to create the hosts file.

Corrective Action

None.

Syslog Message

Creating lock manager file %s on volume %s failed due to error: %s.

Parameters

aggr (STRING): The name of the volume.
file_name (STRING): The name of the file that was being cleared.
error (STRING): Error code.

lmgr.hostfile.init.failed

Severity

ERROR

Description

This message occurs when the volume lock manager hosts file initialization fails.

Corrective Action

None.

Syslog Message

Initializing lock manager file %s on volume %s failed due to error: %s.

Parameters

aggr (STRING): The name of the volume.
file_name (STRING): The name of the file that is being initialized.
error (STRING): Error code.

lmgr.hosts events

lmgr.hosts.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager host object cannot be allocated due to reaching the limit for host objects in the associated pool. It is possible that the system is overloaded. Clients will have problems accessing files through NAS protocols while at or above the host object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of host objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: files %u/%u locks %u/%u owners %u/%u.

Parameters

hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.
owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.

lmgr.lock events

lmgr.lock.reclaim.aborted

Severity

ERROR

Description

This message occurs when the system aborts the volume lock reclaim process. A volume attempts to reclaim file locks when you bring the volume online after a reboot or after a takeover or giveback event. This error is usually caused by the volumes going offline during the initialization process.

Corrective Action

None;When the volumes come back online the reclaim process will be restarted.

Syslog Message

Aborting Lock manager grace period initialization on volume %s due to error: %s.

Parameters

aggr (STRING): The name of the aggregate.
error (STRING): Error code.

lmgr.lock.type.counts

Severity

NOTICE

Description

This message provides additional information about the current count of lock manager objects when a lock manager pool limit is reached. The combination of the counts from a message indicating a limit has been reached and this message provide context for investigating and resolving the limit issues.

Corrective Action

(None).

Syslog Message

The number of lock manager object types in pool %s are: share locks %u byte locks %u waiting locks %u callback waiting %u pfs (clustered Data ONTAP FlexCache delegations) %u cached locks %u WAN FlexCache delegations %u

Parameters

pool_name (STRING): Name of the limit pool.
share (INT): Number of allocated share locks in the pool.
byte (INT): Number of allocated byte locks in the pool.
waiting (INT): Number of allocated waiting locks in the pool.
cb_waiting (INT): Number of allocated cb_waiting locks in the pool.
pfs (INT): Number of allocated clustered Data ONTAP® FlexCache® delegations in the pool.
cached (INT): Number of allocated clustered Data ONTAP FlexCache cached locks in the pool.
delegations (INT): Number of allocated WAN FlexCache delegations in the pool.

lmgr.locks events

lmgr.locks.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager lock object cannot be allocated due to reaching the limit for lock objects in the associated pool. It is possible that the system is overloaded. Clients will have problems accessing files through NAS protocols while at or above the lock object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of lock objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: files %u/%u hosts %u/%u owners %u/%u.

Parameters

locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.

lmgr.locks.sync.complete

Severity

NOTICE

Description

This message occurs when synchronization of client file locks ("locks sync") with the partner node completes over the aggregates noted in the previous "lmgr.locks.sync.start" message. Lock sync occurs for locks that were established using CIFS continuously available (CA) shares.

Corrective Action

(None).

Syslog Message

Lock sync completed on %s.

Parameters

aggr (STRING): Lock sync occurs in two cases: 1. Aggregate relocation 2. Giveback In the case of aggregate relocation, the aggregate name is provided. In the case of giveback, "aggr" indicates that lock sync is occuring over all aggregates on the node.

lmgr.locks.sync.start

Severity

NOTICE

Description

This message occurs when synchronization of client file locks ("locks sync") with the partner node starts over one or more aggregates. Lock sync occurs for locks that were established using CIFS continuously available (CA) shares.

Corrective Action

(None).

Syslog Message

Lock sync started on %s.

Parameters

aggr (STRING): Lock sync occurs in two cases: 1. Aggregate relocation 2. Giveback In the case of aggregate relocation, the aggregate name is provided. In the case of giveback, "aggr" indicates that lock sync is occuring over all aggregates on the node.

lmgr.locks.threshold.hit

Severity

ERROR

Description

This message occurs when lock manager lock object has reached the threshold limit for lock objects in the associated pool. The system might become overloaded. Clients will have problems accessing files through NAS protocols while at or above the lock object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The current number of lock objects %u, with maximum limit of %u has reached the threshold limit percentage of %u for pool "%s". The current number/limit of other lock manager objects are: files %u/%u, hosts %u/%u and owners %u/%u.

Parameters

locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.

threshold_percentage (INT): Threshold locks limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.

lmgr.lockstate events

lmgr.lockstate.cleanup.fail

Severity

ERROR

Description

This message occurs when the system cannot clean up the lock state associated with the active file system. The stale lock state can lead to problems accessing files through NAS protocols.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Lock state cleanup failed for '%s' during '%s' on volume '%s%s%s' (DSID %llu) with error %d.

Parameters

lock_type (STRING): Type of locks being cleaned up.
cleanup_reason (STRING): Reason to clean up locks.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
code (INT): Error code returned while trying to clean up lock state.

lmgr.mcc events

lmgr.mcc.oplock.recall.fail

Severity

ERROR

Description

This message occurs when the system vetoes MetroCluster™ switchback or negotiated switchover because CIFS oplock recall fails. Some oplocks could not be recalled because of CPU overload, slow CIFS client response, or a large number of open files.

Corrective Action

Recall oplocks for Vservers participating in negotiated switchover or switchback operations by using the command 'volume qtree oplocks -volume <vol-name> -qtree <qtree-name> -vserver <vserver-name> -oplock-mode disable' for volumes or qtrees with oplocks enabled. Then retry the MetroCluster operation,

and reenable oplocks after the operation is complete. If the error persists, then contact NetApp technical support for assistance.

Syslog Message

Vetoed MetroCluster switchback or negotiated switchover because CIFS oplock recall failed with internal error (%d).

Parameters

error (INT): Error number.

lmgr.meta events

lmgr.meta.corrupted

Severity

ERROR

Description

This event occurs when the system detects that the lock manager host metafile is corrupted.

Corrective Action

It is possibile that the corruption affected other parts of the file system. Run wafliron on the volume to verify file system consistency.

Syslog Message

Corrupted lock state file in volume %s: reinitializing.

Parameters

path (STRING): Volume name.

lmgr.mismatch events

lmgr.mismatch.file.objects

Severity

NOTICE

Description

This message occurs when the current file object of a lock does not match the file object found through the file handle. This might be caused by a SnapMirror® promote operation where the Master Data Set ID (MSID) is remapped.

Corrective Action

None.

Syslog Message

(None).

Parameters

volume (STRING): Name of the volume, based on the file handle.

lockid (STRING): Lock Universal Unique Identifier (UUID) of the sharelock.
caller (STRING): WAFL® spinnp operation that encountered this event.

lmgr.move events

lmgr.move.dump.lock.counts

Severity

NOTICE

Description

This message occurs when a volume move operation fails the cutover phase, due to volume quiesce timer expiration, and not all locks were transferred before the failure.

Corrective Action

Run the "vserver locks show -vserver <vserver> -volume <volume>" command to check the locks and the client IP addresses they are associated with. For NFS v4 locks, run instead the "vserver locks nfsv4 show -fields client-name" command in all nodes to get the same information. Reduce locks so that the number of locks remaining in this volume is fewer than the number scanned, and then attempt the volume move cutover again.

Syslog Message

The volume move of volume with DSID %llu did not cut over due to volume quiesce timer expiration. The volume move has scanned %d out of %d locks in the volume.

Parameters

volDsid (LONGINT): Data set identifier (DSID) of the volume.
scanned_locks (INT): Number of locks in the volume that were scanned before the failure.
total_locks (INT): Total number of locks in the volume.

lmgr.notify events

lmgr.notify.host.skip.write

Severity

INFORMATIONAL

Description

This message occurs when the volume lock manager cannot write to the notify hosts file due to an error, for example, insufficient space. In such cases, writing to the notify hosts file is skipped.

Corrective Action

(None).

Syslog Message

Skipped writing to notify hosts file %s on volume %s due to error: %s.

Parameters

file_name (STRING): Name of the file that writing was skipped on.
vol (STRING): Name of the volume.
error (STRING): Error code.

lmgr.owners events

lmgr.owners.limit.hit

Severity

ERROR

Description

This message occurs when a lock manager owner object cannot be allocated due to reaching the limit for owner objects in the associated pool. It is possible that the system is overloaded. Clients will have problems accessing files through NAS protocols while at or above the owner object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The number of owner objects %u has reached the limit %u for the pool %s. The current number/limit of other lock manager objects are: files %u/%u hosts %u/%u, locks %u/%u.

Parameters

owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.

lmgr.owners.threshold.hit

Severity

ERROR

Description

This message occurs when a lock manager owner object has reached the threshold limit for owner objects in the associated pool.The system might become overloaded. Clients will have problems accessing files through NAS protocols while at or above the owner object limit.

Corrective Action

Move volumes to a node with a lower utilization of lock manager resources. Lock manager statistics can be displayed from the diagnostic privilege level. Use the "statistics show -raw true -object lmgr_ng" command for displaying all lock manager resource counters. Use the "statistics show -raw true -object lmgr_ng -instance <node-name>" command for displaying the lock manager statistics for a node's limit pool. Use the "statistics show -raw true -object lmgr_ng -node <node-name>" command for displaying all lock manager statistics on the specified node.

Syslog Message

The current number of owner objects %u with maximum limit of %u has reached the threshold limit percentage of %u for pool "%s". The current number/limit of other lock manager objects are: files %u/%u, hosts %u/%u and locks %u/%u.

Parameters

owners_total (INT): Number of allocated owners in the pool.
owners_limit (INT): Allocated owners limit for the pool.
thresold_percentage (INT): Threshold locks limit for the pool.
pool_name (STRING): Name of the limit pool.
files_total (INT): Number of allocated files in the pool.
files_limit (INT): Allocated files limit for the pool.
hosts_total (INT): Number of allocated hosts in the pool.
hosts_limit (INT): Allocated hosts limit for the pool.
locks_total (INT): Number of allocated locks in the pool.
locks_limit (INT): Allocated locks limit for the pool.

lmgr.partner events

lmgr.partner.locks.outOfSync

Severity

ERROR

Description

This message occurs when a partner node's mirrored lock state goes out of sync with the actual lock state.

Corrective Action

Under normal conditions, no action is necessary. There is an automatic synchronize process that will attempt to resynchronize the lock state. You can wait for this process to synchronize the lock state, or you can manually resynchronize the lock state by running the 'debug locks mirrored sync' command in diag mode, with the Vserver, volume, and file ID supplied in this message.

Syslog Message

Mirrored lock state is out of sync for %s%s/%s (DSID %08x) for file %d Snapshot copy %d (mirroring status %d communication status %d)

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Volume identifier to uniquely identify the volume in cases where the volume name alone is insufficient.
dsid (LONGINT): Data set identifier.
fileid (INT): File identifier.
snapid (INT): Snapshot(tm) copy in which the file exists, 0 for the active file system.
mirroring_status (INT): Error status from the mirroring operation.
csm_status (INT): Communication status from the mirroring operation.

lmgr.partner.locks.resynched

Severity

INFORMATIONAL

Description

This message occurs when a partner node's mirrored lock state is resynchronized with the actual lock state after having been out of sync previously.

Corrective Action

The mirrored lock state is now synchronized between the partner nodes. You can verify the mirror state of the locks by running the 'debug locks mirrored show' command in diag mode, with the Vserver, volume, and file ID supplied in this message.

Syslog Message

Mirrored lock state is now in sync for %s/%s (DSID %08x) for file %d Snapshot copy %d.

Parameters

vol (STRING): Volume name.
volident (STRING): Volume identifier to uniquely identify the volume in cases where the volume name alone is insufficient.
dsid (LONGINT): Data set identifier.
fileid (INT): File identifier.
snapid (INT): Snapshot(tm) copy in which the file exists, 0 for the active file system.

lmgr.persistent events

lmgr.persistent.file.open.limit.hit

Severity

NOTICE

Description

This message is triggered when the persistent open lock count for a single file reaches its maximum supported limit.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. From the diagnostic privilege level, execute "lmgr test show_ca_locks_count <file_path>" to inspect the persistent open lock count for the file. If necessary, close unused opens to reduce the count to the maximum limit of persistent open locks per file.

Syslog Message

The file with id %u on volume '%s' (DSID %llu) has hit its maximum persistent open lock count, fully utilizing the supported limit of %u.

Parameters

file_id (INT): File inode number.
vol_name (STRING): Name of the volume.
vol_dsid (LONGINT): Data set identifier (DSID) of the volume.
locks_limit (INT): Maximum supported persistent open locks count for a file.

lmgr.persistent.file.open.limit.warn

Severity

NOTICE

Description

This message is triggered when the persistent open lock count for a single file reaches 80% its maximum supported limit.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. From the diagnostic privilege level, execute "lmgr test show_ca_locks_count <file_path>" to inspect the persistent open lock count for the file. If necessary, close unused opens to reduce the count to the maximum limit of persistent open locks per file.

Syslog Message

The persistent open lock count for file with id %u on volume '%s' (DSID %llu) has reached %u, constituting 80 percent of its maximum supported limit of %u.

Parameters

file_id (INT): File inode number.
vol_name (STRING): Name of the volume.
vol_dsid (LONGINT): Data set identifier (DSID) of the volume.
locks_total (INT): Number of persistent open lock count for file.
locks_limit (INT): Maximum supported persistent open locks count for a file.

lmgr.persistent.open.limit.hit

Severity

NOTICE

Description

This message occurs when the number of persistent open lock count reaches the maximum supported limit.

Corrective Action

Run the "vserver locks show-mirrored-open-count -detailed" command to check the persisted open lock count and try closing the unused files to bring this count down to the currently supported maximum persistent open locks.

Syslog Message

The number of persisted open locks count %u has reached the limit %u.

Parameters

locks_total (INT): Number of persisted open locks.
locks_limit (INT): Maximum supported persisted open locks.

lmgr.precommit events

lmgr.precommit.oplock.recall.fail

Severity

ALERT

Description

This message occurs when the system fails aggregate giveback or relocation because SMB oplock or NFSv4 delegation recall fails. Giveback or relocation cannot proceed until all oplocks are recalled successfully or the lock manager pre-commit phase is forced, in which case cached writes in clients might be lost.

Corrective Action

There are two options for allowing aggregate giveback or relocation to proceed: (1) Force the sendhome pre-commit phase. For aggregate relocation, this can be done by specifying the '-override-destination-checks true' option. For giveback, this can be done by specifying the '-require-partner-waiting false' option. (2) Recall oplocks for Vservers on aggregates participating in the operation by using the 'volume qtree oplocks -volume <vol-name> -qtree <qtree-name> -vserver <vserver-name> -oplock-mode disable' command for volumes or qtrees with oplocks enabled. Then retry the operation, and reenable oplocks after the operation is complete. If the error persists, contact NetApp technical support for assistance.

Syslog Message

Aggregate "%s" failed giveback or relocation because lock manager oplock recall failed. Error: %s.

Parameters

aggrname (STRING): Aggregate name.
error (STRING): Error details.

lmgr.precommit.oplock.recall.forced

Severity

NOTICE

Description

This message occurs when the lock manager oplock recall fails during aggregate giveback or relocation, but the pre-commit phase has been forced to proceed. It is possible that cached writes in clients might have been lost as a result.

Corrective Action

(None).

Syslog Message

Lock manager oplock recall failed for aggregate "%s" during giveback or relocation. The failure abort was overridden. Error: %s.

Parameters

aggrname (STRING): Aggregate name.
error (STRING): Error details.

lmgr.precommit.oplock.recall.timeout

Severity

ALERT

Description

This message occurs when the lock manager oplock recall fails during aggregate giveback or relocation because the recalls could not be completed within the internal timeout window. The timeout typically can expire due to CPU overload, slow client response, or a large number of open files.

Corrective Action

The timeout can can be ignored by specifying the '-override-vetoes true' option in the giveback or relocation command.

Syslog Message

Lock manager oplock recall failed to be completed for aggregate "%s" within %d seconds.

Parameters

aggrname (STRING): Aggregate name.
timeout (INT): Timeout value.

lmgr.pruning events

lmgr.pruning.delayed

Severity

NOTICE

Description

This message occurs when there is a delay in pruning and removing unused entries in the volume lock manager hosts file. The current hosts file contents remain; unused entries were not removed.

Corrective Action

(None).

Syslog Message

Pruning lock manager on volume %s for file %s delayed due to error: %s.

Parameters

volume (STRING): Name of the volume.
file_name (STRING): Name of the host file being pruned.
error (STRING): Error description.

lmgr.recons events

lmgr.recons.CA.lock.dropped

Severity

ERROR

Description

This message occurs when locks established through CIFS Continuously Available (CA) shares are dropped after a takeover, giveback, or aggregate relocation. This is because the multi-protocol lock manager finds bad mirrored lock state for CA locks and skips reconstructing them. This causes a client to see a service disruption on the file to which the CA locks belong.

Corrective Action

Reopen the file to reestablish CA locks.

Syslog Message

A Continuously Available (CA) lock for volume %s%s/%s (DSID %08x) file %d snapshot copy %d reconnect key %d is dropped because of %s.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Volume identifier to uniquely identify the volume in cases where the volume name alone is insufficient.
dsid (LONGINT): Data set identifier.
fileid (INT): File identifier.
snapid (INT): Snapshot(tm) copy in which the file exists, 0 for the active file system.
reconnect_key (INT): Open identifier to uniquely identify a durable or persistent open on a volume
reason (STRING): Description of the reason for dropping a CA lock.

lmgr.scrub events

lmgr.scrub.lock.space.error

Severity

NOTICE

Description

This message occurs when the internal scrubbing of Remote Lock Entry Metafile (RLEM) fails due to insufficient storage space.

Corrective Action

Run "lmgr scrub_remote_lock <DSID> -multipart true" command from the diagnostic privilege level for scrubbing the Remote Lock Entry Metafile (RLEM) manually.

Syslog Message

The system was unable to scrub the Remote Lock Entry Metafile (RLEM) automatically on volume '%s%s%s' (DSID %llu). Please scrub it manually.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name alone is insufficient.
volDsid (LONGINT): Data set identifier (DSID) of the volume.

lmgr.sendhome events

lmgr.sendhome.veto.bootarg.override

Severity

NOTICE

Description

This message occurs during an SFO aggregate giveback or relocation. It implies that the automated nondisruptive update procedure will override any veto by the lock-manager, due to the presence of a bootarg.

Corrective Action

(None).

Syslog Message

Because bootarg.gb.override.lmgr.veto is set to true, the ANDU procedure will override any lock-manager veto regarding the giveback of the "%s" aggregate.

Parameters

aggregate (STRING): Name of the aggregate.

lmgr.session events

lmgr.session.failed

Severity

INFORMATIONAL

Description

This event occurs when a SpinNP session has failed, which causes session-scoped (e.g. CIFS) locks on the D-blade to be dropped. Only affects locks acquired using the failed session. This will cause clients to see a service disruption until they re-connect to the server.

Corrective Action

None — clients will automatically try to reconnect to the server, re-locking files as necessary.

Syslog Message

Dropped session-scoped locks from session %s:%s:%s due to failed session.

Parameters

initiator (STRING): The blade ID of the initiator.
uniquifier (STRING): The session uniquifier.
target (STRING): The blade ID of the target.

lmgr.sf events

lmgr.sf.up.ready

Severity

NOTICE

Description

This message occurs when the lock manager non-disruption subsystem for CIFS continuously available (CA) shares notifies the high-availability (HA) module that transition into the up state is allowed. After the lock manager has sent this notification, the HA module will allow certain failover options to proceed such as aggregate relocation and giveback.

Corrective Action

(None).

Syslog Message

Lock manager allowed high availability module to transition to the up state for the following reason: %s.

Parameters

reason (STRING): Reason for allowing transition to occur. Valid reasons include: 1. Lock-sync complete 2. Lock-sync timed out 3. CSM Invalid 4. Partner down 5. Mirroring disabled from bootarg 6. SMB3 disabled

lmgr.sh events

lmgr.sh.oplock.recall.fail

Deprecated

This EMS was replaced by the new "lmgr.precommit.oplock.recall.*" variants below and is no longer needed.

Severity

ALERT

Description

This message occurs when the system vetoes aggregate giveback or relocation because CIFS oplock recall fails. Some oplocks could not be recalled because of CPU overload, slow CIFS client response, or a large number of open files. Giveback or relocation cannot proceed until all oplocks are recalled successfully or the veto is overridden, in which case cached writes in clients might be lost.

Corrective Action

Recall oplocks for Vservers on aggregates participating in the operation by using the command 'volume qtree oplocks -volume <vol-name> -qtree <qtree-name> -vserver <vserver-name> -oplock-mode disable' for volumes or qtrees with oplocks enabled. Then retry the operation, and reenable oplocks after the operation is complete. If the error persists, contact NetApp technical support for assistance.

Syslog Message

Aggregate "%s" vetoed giveback or relocation because CIFS oplock recall failed. Internal error: %s.

Parameters

aggrname (STRING): Aggregate name.
error (STRING): Error details.

lmgr.vol events

lmgr.vol.lock.reclaim.partial

Severity

NOTICE

Description

This message occurs when a volume cannot reclaim certain file locks when the system attempts to bring it online. This can occur after a reboot, a takeover, a giveback or an MCC event.

Corrective Action

(None).

Syslog Message

Lock reclaims for volume %s are partial due to the following error: %s.

Parameters

vol (STRING): The name of the volume.
error (STRING): Error code.

logger events

logger.usr events

logger.usr

Severity

NOTICE

Description

This event is issued when the user runs the 'logger' command. The parameter indicates the message that is sought to be notified and is derived from the string passed in to the logger command.

Corrective Action

(None).

Syslog Message

%s

Parameters

message (STRING): Message passed by the user to the logger command.

login events

login.auth events

login.auth.loginDenied

Severity

NOTICE

Description

This event is issued when a login attempt is refused due to authentication failure.

Corrective Action

Use a valid username/password combination to login.

Syslog Message

(None).

Parameters

message (STRING): Details about the failed login attempt.

lsm events

lsm.merge events

lsm.merge.alog.problem

Severity

NOTICE

Description

This message occurs when a block store encounters an error while merging an append log. Normally these merges should recover, but it is important to keep track of exactly when and where the problem happened to help with performance tuning and recovery options.

Corrective Action

(None).

Syslog Message

Block store LSM "%u" (level %u) of keyspace "%u" on volume "%s" has encountered the following error while merging an append log: "%u : %s"

Parameters

lsm_id (INT): LSM identifier.
lsm_level (INT): LSM level.
keyspace_id (INT): Keyspace identifier.
volume_name (STRING): Volume name.
error_code (INT): Error code.
error_string (STRING): Error string.

lsm.merge.slog.problem

Severity

NOTICE

Description

This message occurs when a block store encounters an error while merging a sorted log. Normally these merges should recover, but it is important to keep track of exactly when and where the problem happened to help with performance tuning and recovery options.

Corrective Action

(None).

Syslog Message

Block store LSM "%u" (level %u) of keyspace "%u" on volume "%s" has encountered the following error while merging a sorted log: "%u : %s"

Parameters

lsm_id (INT): LSM identifier.
lsm_level (INT): LSM level.
keyspace_id (INT): Keyspace identifier.

volume_name (STRING): Volume name.
error_code (INT): Error code.
error_string (STRING): Error string.

lsm.pal events

lsm.pal.problem

Severity

NOTICE

Description

This message occurs when a block store PAL operation encounters an error. Normally these PAL operations should recover, but it is important to keep track of exactly when and where the problem happened to help with performance tuning and recovery options.

Corrective Action

(None).

Syslog Message

Block store PAL has encountered the following error while processing operation "%s": "%u"

Parameters

pal_op (STRING): PAL operation being done.
error_code (INT): WAFL error code.

lsm.rangedelete events

lsm.rangeDelete.problem

Severity

NOTICE

Description

This message occurs when a block store encounters an error while performing a range delete operation. Normally these deletes should recover, but it is important to keep track of exactly when and where the problem happened to help with performance tuning and recovery options.

Corrective Action

(None).

Syslog Message

Block store LSM "%u" (level %u) of keyspace "%u" on volume "%s" has encountered the following error while performing a range delete operation: "%u : %s"

Parameters

lsm_id (INT): LSM identifier.
lsm_level (INT): LSM level.
keyspace_id (INT): Keyspace identifier.
volume_name (STRING): Volume name.
error_code (INT): Error code.

error_string (STRING): Error string.

lun events

lun.clone events

LUN.clone.log.full

Severity

NOTICE

Description

This message occurs when lun clone creation fails because the limit on the maximum number of supported clone log entries (32705) is exceeded.

Corrective Action

Retry upon the completion of the pending clone operations for this volume.

Syslog Message

Logging the LUN clone creation has failed because the limit on the maximum number of supported clone log entries in the volume %s (DSID %llu) has been exceeded.

Parameters

volume_name (STRING): Name of the volume for which the LUN clone creation has failed.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the LUN clone creation has failed.

LUN.clone.snapshot.deleted

Severity

NOTICE

Description

This message occurs when the snapshot used to clone a LUN is deleted before the completion of the cloning process. Data may be inaccessible for this LUN, depending on how much of the data was copied before the snapshot was deleted.

Corrective Action

The LUN should be destroyed to prevent I/O errors from occurring.

Syslog Message

A snapshot containing a file or LUN used to create the LUN clone %s (Inode number %d) in volume %s (DSID %llu) was deleted before the completion of the cloning process.

Parameters

lun_path (STRING): Path for the LUN clone for which the snapshot was deleted.
lun_inode_num (INT): Inode number of the LUN clone for which the snapshot was deleted.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.copy events

LUN.copy.dstPresent

Severity

INFORMATIONAL

Description

This message occurs when a LUN appears in the public namespace of the destination volume during a LUN copy operation.

Corrective Action

(None).

Syslog Message

LUN copy job with UUID %s created destination LUN (%s) successfully.

Parameters

job_uuid (STRING): UUID of the LUN copy job.
dst_path (STRING): Destination path of the LUN copy job.

LUN.copy.started

Severity

INFORMATIONAL

Description

This message occurs when a LUN copy operation is successfully started.

Corrective Action

(None).

Syslog Message

LUN copy started from (DSID:%llu)%s to (DSID:%llu)%s with job-uuid %s.

Parameters

src_vol_dsid (LONGINT): Source volume Data Set ID (DSID).
src_lun (STRING): Source LUN.
dst_vol_dsid (LONGINT): Destination volume Data Set ID (DSID).
dst_lun (STRING): Destination LUN.
UUID (STRING): UUID identifying the copy operation.

lun.create events

LUN.create.nvfailed.volume

Severity

ERROR

Description

This message occurs when a LUN is created in a volume that is in the nvfailed state.

Corrective Action

Clear the nvfailed state of the containing volume, take the appropriate nvfail recovery action to recover from the possible data loss, and bring the LUN online. Note that the actual recovery steps vary based on the application and the host.

Syslog Message

LUN %s was created in a volume %s (DSID %llu) that is in the nvfailed state. It is offline and in the nvfailed state.

Parameters

lun_path (STRING): Path for the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

LUN.create.resized.base

Severity

NOTICE

Description

This message occurs when creating a LUN from a base file causes a permanent size change to that base file.

Corrective Action

(None).

Syslog Message

The base file of the LUN at path %s in volume %s (DSID %llu) has been resized.

Parameters

lun_path (STRING): Path for the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

lun.data events

LUN.data.unavailable

Severity

ERROR

Description

This message occurs when data is unable to be read from a capacity tier.

Corrective Action

Troubleshoot capacity tier connectivity problems.

Unavailable error was received for the object at path %s (fileid:%u) in volume %s (DSID %llu).

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace.
file_id (INT): Identifying number for the suspect inode.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.destroy events

LUN.destroy

Severity

NOTICE

Description

This message occurs when a LUN is destroyed.

Corrective Action

(None).

Syslog Message

LUN %s, vol %s (DSID %llu) destroyed (UUID: %s).

Parameters

lun_path (STRING): Path for the LUN that was destroyed.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the LUN or a hyphen (-) if the UUID cannot be determined.
object_type (STRING): Type of object under notification.

lun.inaccessible events

LUN.inaccessible.restore

Severity

NOTICE

Description

This message occurs when a LUN or NVMe namespace that is inaccessible due to restore is found in a volume. Such an object can contain inconsistent data and will not be accessible for I/O or management operations.

Corrective Action

The object can be destroyed using the option force-fenced for the command 'lun destroy'. It can also be restored from a snapshot or backup.

The LUN or NVMe namespace %s in volume %s (DSID %llu) is inaccessible due to restore.

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.inconsistent events

LUN.inconsistent.blocks

Severity

ERROR

Description

This message occurs when the block containing a LUN or NVMe namespace's attributes is found to be inconsistent.

Corrective Action

Recover the LUN or NVMe namespace from a good backup. If the unrecoverable RAID is in a Snapshot(tm) copy, delete the Snapshot copy. Contact NetApp technical support for more options.

Syslog Message

RAID error was received for the attributes of the object at path %s (fileid:%u) in volume %s (DSID %llu).

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace.
file_id (INT): Identifying number for the suspect inode.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

LUN.inconsistent.filesystem

Severity

EMERGENCY

Description

This message occurs when a LUN or NVMe namespace is found whose on-disk structure is inconsistent in the WAFL® file system. Such a LUN or NVMe namespace is not accessible for I/O or management operations.

Corrective Action

Run wafliron on the containing aggregate, and then recover the LUN from a backup. Contact NetApp technical support for more options.

Syslog Message

The on-disk structure of the object at path %s in volume %s (DSID %llu) is inconsistent in the WAFL file system.

Parameters

> **lun_path** (STRING): Path for the LUN or NVMe namespace.
> **volume_name** (STRING): Name of the containing volume.
> **volume_dsid** (LONGINT): Data set ID (DSID) of the containing volume.

lun.inplace events

LUN.inplace.dmpRstrLUNonNS

Severity

> ERROR

Description

> This message occurs when an in-place restore from a dump fails and creates a metadata inconsistency because the source object type does not match the existing destination object. A LUN has been restored over an existing NVMe namespace at the same path.

Corrective Action

> Unmap the NVMe namespace for which the mismatched restore has created a metadata inconsistency by using the "subsystem map remove" command. Remove the NVMe namespace for which the mismatched restore has created a metadata inconsistency by using the "force-fenced" option for the "lun delete" command. Retry the dump restore. If the original restore location was chosen in error, recover that deleted NVMe namespace.

Syslog Message

> An in-place restore from dump to an existing destination at path %s in volume %s (DSID %llu) failed due to a vdisk type mismatch.

Parameters

> **lun_path** (STRING): Path of the existing destination for which the restore failed.
> **volume_name** (STRING): Name of the destination volume.
> **volume_dsid** (LONGINT): Data set ID (DSID) of the destination volume.

LUN.inplace.dmpRstrNSonLUN

Severity

> ERROR

Description

> This message occurs when an in-place restore from a dump fails and creates a metadata inconsistency because the source object type does not match the existing destination object. An NVMe namespace has been restored over an existing LUN at the same path.

Corrective Action

> Unmap the LUN for which the mismatched restore has created a metadata inconsistency by using the "lun unmap" command. Remove the object for which the mismatched restore has created a metadata inconsistency by using the "force-fenced" option for the "lun delete" command. Retry the dump restore. If the original restore location was chosen in error, recover that deleted LUN.

Syslog Message

An in-place restore from dump to an existing destination at path %s in volume %s (DSID %llu) failed due to a vdisk type mismatch.

Parameters

lun_path (STRING): Path of the existing destination for which restore failed.
volume_name (STRING): Name of the destination volume.
volume_dsid (LONGINT): Data set ID (DSID) of the destination volume.

LUN.inplace.dumpRestoreFail

Severity

ERROR

Description

This message occurs when an in-place restore of a LUN from a dump fails because the source LUN is of a higher version than this Data ONTAP® release supports.

Corrective Action

To recover the source LUN's data from the dump, first restore the LUN to a new path on the destination volume where it will be restored as a regular file with the entire source data intact. Then create a new and unmapped LUN from this file using the 'lun create -f' command. The original destination LUN is inaccessible for I/O or management operations and can be deleted using the 'force-fenced' option for the command 'lun destroy'.

Syslog Message

An in-place restore from dump to an existing destination LUN at path %s in volume %s (DSID %llu) failed.

Parameters

lun_path (STRING): Path of the existing destination LUN for which restore failed.
volume_name (STRING): Name of the destination volume.
volume_dsid (LONGINT): Data set ID (DSID) of the destination volume.

LUN.inplace.restore.failed

Severity

ERROR

Description

This message occurs when an in-place SFSR (Single File SnapRestore®) operation fails and might have left a LUN or NVMe namespace in an inconsistent state.

Corrective Action

To recover the LUN, restore it to a new path. After the LUN is restored it needs to be mapped and hosts need to discover the new device. The LUN in the original path can be deleted.

Syslog Message

An in-place SFSR (Single File SnapRestore®) failed at path %s in volume %s (DSID %llu) and might have left the LUN in an inconsistent state.

Parameters

lun_path (STRING): Path of the LUN or NVMe namespace for which the restore operation failed.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.metadb events

LUN.metadb.version.mismatch

Severity

ERROR

Description

This message occurs when a version mismatch is detected for the metafile containing LUN metadata.

Corrective Action

Rebuild the LUN metadata metafile for the volume by running the 'lun rescan -build-oovc' command.

Syslog Message

A version mismatch was detected for the metafile containing LUN metadata metafile in volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which a version mismatch of the metafile containing LUN metadata was detected.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which a version mismatch of the metafile containing LUN metadata was detected.

lun.metafile events

lun.metafile.dirCreateFailed

Severity

ERROR

Description

lun metafile directory creation failed

Corrective Action

Check available space on the volume and make sure that the volume is not full or close to full.

Syslog Message

Couldn't create vdisk metafile directory %s.

Parameters

path (STRING): path for the metafile directory that Data ONTAP failed to create

lun.metafile.OOVC.corrupt

Severity

ERROR

Description

This message occurs when inconsistent blocks are read while reading or writing to the Out Of Volume Container (OOVC) metafile. The OOVC metafile contains certain LUN and NVMe namespace configuration and metadata for the objects in a given volume. SAN management operations might be impaired while the OOVC is in this state.

Corrective Action

Use the 'lun rescan -build-oovc' command to rebuild the OOVC metafiles for the affected volume.

Syslog Message

RAID error inconsistency was received for the OOVC metafile in volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which the OOVC metafile was found to be inconsistent.
volume_dsid (LONGINT): Data set ID (DSID) of the volume for which the OOVC metafile was found to be inconsistent.

lun.metafile.VTOC.corrupt

Severity

ERROR

Description

This message occurs when inconsistent blocks are read while reading or writing to the Vdisk Table of Contents (VTOC) metafile. The VTOC metafile contains the inventory of LUNs and NVMe namespaces in a given volume. SAN management operations might be impaired while the VTOC is in this state.

Corrective Action

Use the 'lun rescan -build-vtoc' command to rebuild the VTOC metafile for the affected volume.

Syslog Message

RAID error inconsistency was received for the VTOC metafile in volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which the VTOC metafile was found to be inconsistent.
volume_dsid (LONGINT): Data set ID (DSID) of the volume for which the VTOC metafile was found to be inconsistent.

lun.move events

LUN.move.dstPresent

Severity

INFORMATIONAL

Description

This message occurs when a LUN appears in the public namespace of the destination volume during a LUN move operation.

Corrective Action

(None).

Syslog Message

LUN move job with UUID %s created destination LUN (%s) successfully.

Parameters

job_uuid (STRING): UUID of the LUN move job.
dst_path (STRING): Destination path of the LUN move job.

LUN.move.started

Severity

INFORMATIONAL

Description

This message occurs when a LUN move operation is successfully started.

Corrective Action

(None).

Syslog Message

LUN move started from (DSID:%llu)%s to (DSID:%llu)%s with job-uuid %s.

Parameters

src_vol_dsid (LONGINT): Source volume Data Set ID (DSID).
src_lun (STRING): Source LUN.
dst_vol_dsid (LONGINT): Destination volume Data Set ID (DSID).
dst_lun (STRING): Destination LUN.
UUID (STRING): UUID identifying the move operation.

lun.no events

LUN.no.memory.available

Severity

NOTICE

Description

This message occurs when an operation on LUNs or NVMe namespaces on the node owning the given volume fails due to the unavailability of Data ONTAP® memory.

Corrective Action

Retry the operation.

Syslog Message

An operation on LUNs or NVMe namespaces on the node owning the volume %s (DSID %llu) failed due to unavailability of Data ONTAP® memory.

Parameters

volume_name (STRING): Name of the volume for which the operation has failed.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the operation has failed.

lun.nvfail events

LUN.nvfail.option.on

Severity

NOTICE

Description

This message occurs when the nvfail option for the named volume is turned on. The volume contains LUNs or NVMe namespaces and it is recommended that you keep this option on for such volumes.

Corrective Action

(None).

Syslog Message

The nvfail option for the volume %s (DSID %llu) has been turned on. The volume contains LUNs or NVMe namespaces and it is recommended that this option be kept on for such volumes.

Parameters

volume_name (STRING): Name of the volume for which the nvfail option was turned on.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the nvfail option has been turned on.

LUN.nvfail.vol.proc.complete

Severity

ERROR

Description

This message occurs when an inconsistency is detected in the nvlog during boot or takeover, resulting in the initiation of nvfail processing and the LUNs in the volume being brought offline. This behavior is expected and is intended to prevent any FC/iSCSI data access to LUNs in a volume that might have lost the last few updates to the nvlog. Platform specifics: ASA r2: In addition to LUNs, NVMe namespaces will be brought offline when an inconsistency is dectected in the nvlog during boot or takeover. This behavior is expected and is intended to prevent any NVMf data access to NVMe namespaces in a volume that might have lost the last few updates to the nvlog.

Corrective Action

Verify that the LUN maps are valid. After the LUNs are mapped properly, use the 'lun online' command to bring the LUNs online to make then available to hosts. Host side recovery actions may be required to check the consistency of the data in the LUNs. Platform specifics: ASA r2: Use the 'nvme namespace modify -state online' command to bring the NVMe namespace online. Host side recovery actions may be required to check to consistency of the data in the NVMe namespace.

Syslog Message

LUNs or NVMe namespaces in volume %s (DSID %llu) have been brought offline because an inconsistency was detected in the nvlog during boot or takeover.

Parameters

> **volume_name** (STRING): Name of the volume for which nvfail processing was completed.
> **volume_dsid** (LONGINT): Data Set ID (DSID) of the volume for which nvfail processing was completed.

LUN.nvfail.vol.proc.failed

Severity

> EMERGENCY

Description

> This message occurs when nvfail processing for LUNs in a volume fails to complete. Some of the LUNs in the volume might not be offline. FC/iSCSI data access to the LUNs in the volume is prevented until the nvfail state of the volume is cleared. Platform specifics: ASA r2: In addition to LUNs, Some NVMe namespaces might not be offline when nvfail processing fails to complete. NVMf data access to NVMe namespaces is prevented until the nvfail state of the volume is cleared.

Corrective Action

> For any LUNs that are offline, use the 'lun online' command to bring them online and make them available to hosts. Host side recovery actions might be required to check the consistency of the data in the LUNs. Platform specifics: ASA r2: For any NVMe namespaces that are offline, use the 'nvme namespace modify -state online' command to bring them online and make them available to hosts. Host side recovery actions might be required to check the consistency of the data in the NVMe namespaces.

Syslog Message

> An inconsistency was detected in the nvlog during boot or takeover, and some or all LUNs or NVMe namespaces in volume %s (DSID %llu) might not have been brought offline.

Parameters

> **volume_name** (STRING): Name of the volume for which nvfail processing failed.
> **volume_dsid** (LONGINT): Data Set ID (DSID) of the volume for which nvfail processing failed.

LUN.nvfail.vol.proc.started

Severity

> ERROR

Description

> This message occurs when an inconsistency is detected in the nvlog during boot or takeover, resulting in the initiation of nvfail processing and the LUNs in the volume being brought offline. This behavior is expected and is intended to prevent any FC/iSCSI data access to LUNs in a volume that might have lost the last few updates to the nvlog. Platform specifics: ASA r2: In addition to LUNs, NVMe namespaces will be brought offline when an inconsistency is dectected in the nvlog during boot or takeover. This behavior is expected and is intended to prevent any NVMf data access to NVMe namespaces in a volume that might have lost the last few updates to the nvlog.

Corrective Action

> Verify that the LUN maps are valid. After the LUNs are mapped properly, use the 'lun online' command to bring the LUNs online to make then available to hosts. Host side recovery actions may be required to check the consistency of the data in the LUNs. Platform specifics: ASA r2: Use the 'nvme namespace modify -state online' command to bring the NVMe namespace online. Host side recovery actions may be required to check to consistency of the data in the NVMe namespace.

Syslog Message

LUNs or NVMe namespaces in volume %s (DSID %llu) have been brought offline because an inconsistency was detected in the nvlog during boot or takeover.

Parameters

volume_name (STRING): Name of the volume for which nvfail processing was initiated.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which nvfail processing was initiated.

lun.offline events

LUN.offline

Severity

NOTICE

Description

This message occurs when a LUN is brought offline manually.

Corrective Action

(None).

Syslog Message

LUN %s, vol %s (DSID %llu) was brought offline (UUID: %s).

Parameters

lun_path (STRING): Path for the LUN that was brought offline.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the LUN.
object_type (STRING): Type of object under notification.

lun.online events

LUN.online

Severity

NOTICE

Description

This message occurs when a LUN is brought online manually.

Corrective Action

(None).

Syslog Message

LUN %s, vol %s (DSID %llu) was brought online (UUID: %s).

Parameters

lun_path (STRING): Path for the LUN that was brought online.
volume_name (STRING): Name of the containing volume.

volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the LUN.
object_type (STRING): Type of object under notification.

lun.oovc events

LUN.oovc.rebuild.done

Severity

NOTICE

Description

This message occurs when the rebuilding of the Out Of Volume Container (OOVC) file is complete.

Corrective Action

(None).

Syslog Message

The OOVC has been rebuilt for the volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which the OOVC file was rebuilt.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the OOVC file was rebuilt.

LUN.oovc.version.mismatch

Severity

ERROR

Description

This message occurs when a version mismatch is detected for the Out Of Volume Container (OOVC) metafile.

Corrective Action

Rebuild the OOVC metafile for the volume by running the 'lun rescan -build-oovc' command.

Syslog Message

A version mismatch has been detected for the OOVC metafile in volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which a version mismatch of the OOVC metafile has been detected.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which a version mismatch of the OOVC metafile has been detected.

lun.op events

LUN.op.nvfail.offline

Severity

ERROR

Description

This message occurs when a LUN is restored or a LUN clone is created in a volume that is currently in the nvfailed state. It can also occur if the source LUN for the operation is in the nvfailed state.

Corrective Action

If the containing volume is in the nvfailed state, clear the nvfailed state and bring the LUN online. Host side recovery actions might be required to check the consistency of the data in the LUN before the LUN is brought online. Note that the actual recovery steps vary based on the application and the host.

Syslog Message

LUN %s in volume %s (DSID %llu) is offline and in the nvfailed state.

Parameters

lun_path (STRING): Path for the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

lun.out events

LUN.out.of.space

Severity

EMERGENCY

Description

This message occurs when a LUN is brought offline by the SCSI layer because of a write failure due to lack of space.

Corrective Action

Add space to the volume, and then bring the LUN online using the "lun online" command.

Syslog Message

LUN %s, vol %s (DSID %llu) is out of space (UUID: %s).

Parameters

lun_path (STRING): Path for the LUN that was brought offline.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the LUN.
object_type (STRING): Type of object under notification.

lun.outplace events

LUN.outplace.dumpRestoreFail

Severity

ERROR

Description

This message occurs when an out-of-place restore of a LUN from dump fails because the source LUN is of a higher version than this Data ONTAP® release supports.

Corrective Action

Restore creates a regular file at the destination path, with the same data as in the source LUN. To recover the source LUN's data from the dump, you can create a new and unmapped LUN from this file using the 'lun create -f' command.

Syslog Message

An out-of-place restore of a LUN from dump for the destination path %s in volume %s (DSID %llu) failed.

Parameters

lun_path (STRING): Destination path for the failed LUN restore.
volume_name (STRING): Name of the destination volume.
volume_dsid (LONGINT): Data set ID (DSID) of the destination volume.

lun.provisioning events

LUN.provisioning.failed

Severity

ERROR

Description

This message occurs during the creation of a LUN or NVME namespace when the provisioning for its metadata fails due to insufficient space in the aggregate. Attempts to map or bind the object will fail until the aggregate has sufficient free space for the metadata.

Corrective Action

Add more space to the aggregate. Use the command 'lun map' or 'lun bind' to allow provisioning of the LUN's metadata to be completed.

Syslog Message

LUN or NVMe namespace %s in volume %s (DSID %llu) was created, but provisioning of its metadata failed due to insufficient space in the aggregate.

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace for which metadata provisioning failed.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.restore events

LUN.restore.complete

Severity

INFORMATIONAL

Description

This message occurs when the SFSR (Single File SnapRestore®) for a LUN or NVMe namespace is complete.

Corrective Action

(None).

Syslog Message

LUN or NVMe namespace was restored at path %s in volume %s (DSID %llu).

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace that was restored.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

lun.scsi events

LUN.SCSI.reservation.removal.failed

Severity

ALERT

Description

This message occurs when the SCSI reservation for one or more LUNs in the secondary or primary Vserver cannot be deleted during a Vserver disaster recovery(DR) resynchronize operation. This might result in the host accessing stale SCSI reservation entries for the LUN during a subsequent Vserver DR activate operation.

Corrective Action

Use the "lun persistent-reservation clear" command to remove the LUN's SCSI reservation.

Syslog Message

SCSI reservation for LUN %s in volume %s (DSID %llu) could not be deleted.

Parameters

lun_path (STRING): Path for the LUN whose SCSI reservation could not be removed.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

lun.serial events

lun.serial.timeWentBack

Severity

INFORMATIONAL

Description

This event occurs when the system clock has been set back in time. It prints the current LUN serial number counter.

Corrective Action

(None).

Syslog Message

(None).

Parameters

counter (LONGINT): Current value of LUN serial number counter.

lun.space events

LUN.space.resv.not.honored

Severity

NOTICE

Description

This message occurs when the space reservation settings for the named volume are not honored in its containing aggregate.

Corrective Action

Make sure that the space guarantee settings for the volume are set to 'file' or 'volume'. If the volume guarantee is disabled, make sure that there is enough free space in the aggregate to enable the volume guarantee.

Syslog Message

Space reservations in volume %s (DSID %llu) are not honored, either because the volume space guarantee is set to 'none' or it is disabled due to lack of space in its containing aggregate.

Parameters

volume_name (STRING): Name of the volume for which reservations are not honored.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which reservations are not honored.

lun.transition events

LUN.transition.fail.no.i2p

Severity

ERROR

Description

This message occurs when the transition of a 7-Mode LUN to clustered Data ONTAP® fails because the i2p database for the destination volume is not fully built.

Corrective Action

Wait a few seconds and then issue the 'lun transition start' command to retry the transition of LUNs in the volume.

Syslog Message

LUNs in volume %s (DSID %llu) could not be transitioned because the i2p database for the volume has not been fully built.

Parameters

volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

LUN.transition.fail.no.space

Severity

ERROR

Description

This message occurs when the transition of a 7-Mode LUN to clustered Data ONTAP® fails due to lack of space in the destination volume or containing aggregate.

Corrective Action

Set the 'filesys-size-fixed' option to false for the volume, add 1MB space for each LUN in the volume, and then issue the 'lun transition start' command to retry the transition.

Syslog Message

LUN %s in volume %s (DSID %llu) could not be transitioned due to lack of space in the volume.

Parameters

lun_path (STRING): Path for the LUN that could not be transitioned.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

LUN.transition.failed

Severity

ERROR

Description

This message occurs when the transition of a LUN to clustered Data ONTAP® fails.

Corrective Action

Determine the cause of failure and the specific corrective action by looking at other events issued for LUNs. Use the "lun transition start" command to retry the transition.

Syslog Message

LUN %s in volume %s (DSID %llu) could not be transitioned.

Parameters

lun_path (STRING): Path for the LUN that could not be transitioned.
volume_name (STRING): Name of the containing volume.

volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

LUN.transition.incons.attrs

Severity

ERROR

Description

This message occurs when a LUN is found whose 7-Mode on-disk structure is inconsistent in the WAFL® file system. This LUN cannot be transitioned and is not accessible for management.

Corrective Action

If the volume was being transitioned, destroy the LUN by using the "lun transition 7-mode delete" advanced-privilege command in clustered Data ONTAP®. Issue the command "lun transition 7-mode start" to retry transition on the volume.

Syslog Message

The 7-mode on-disk structure of the LUN at path %s in volume %s (DSID %llu) is inconsistent in the WAFL file system.

Parameters

lun_path (STRING): Path for the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

LUN.transition.no.type

Severity

NOTICE

Description

This message occurs when Data ONTAP® encounters a LUN that is scheduled for transition and for which the multiprotocol type of the LUN cannot be determined. Data ONTAP substitutes a default value of "linux" for the type and calculates geometry values to match.

Corrective Action

(None).

Syslog Message

Multiprotocol type for LUN "%s" in volume "%s" (DSID: %llu) could not be determined. Once transitioned, this LUN will be assigned the default type "linux".

Parameters

lun_path (STRING): Path of the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

LUN.transition.unsupp.clone

Severity

ERROR

Description

This message occurs when transition of a LUN to clustered Data ONTAP® fails because the LUN is a Snapshot® copy-backed LUN clone. This LUN cannot be transitioned and is not accessible for management.

Corrective Action

Destroy the LUN by using the "lun transition 7-mode delete" advanced-privilege command in clustered Data ONTAP. To make your original LUN a supported candidate for transition, split your Snapshot copy-backed LUN clone prior to transition.

Syslog Message

LUN %s in volume %s (DSID %llu) could not be transitioned.

Parameters

lun_path (STRING): Path for the LUN that cannot be transitioned.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.

LUN.transition.unsupp.geom

Severity

NOTICE

Description

This message occurs when Data ONTAP® encounters a 7-Mode LUN that is scheduled for transition and for which the extent size or cylinder size is absent or unsupported. Data ONTAP substitutes reasonable geometry values upon transition.

Corrective Action

(None).

Syslog Message

LUN "%s" in volume "%s" (DSID: %llu) has a geometry that is not supported in clustered Data ONTAP. Once transitioned, this LUN will be assigned reasonable geometry values.

Parameters

lun_path (STRING): Path of the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

LUN.transition.unsupported.type

Severity

NOTICE

Description

This message occurs when Data ONTAP® encounters a 7-Mode LUN that is scheduled for transition and for which the multiprotocol type is unsupported in clustered Data ONTAP. Data ONTAP substitutes a default value of "linux" for the type upon transition and calculates geometry values to match.

Corrective Action

(None).

Syslog Message

LUN "%s" in volume "%s" (DSID: %llu) has a multiprotocol type that is not supported in clustered Data ONTAP. Once transitioned, this LUN will be assigned the default type of "linux".

Parameters

lun_path (STRING): Path of the LUN.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

lun.vdisk events

LUN.vdisk.cnt.exceeded

Severity

ERROR

Description

This message occurs when a volume contains more than the supported limit of LUNs in the volume. Performance degradation in volume management operations may occur as a result and it will not be possible to create more LUNs in this volume.

Corrective Action

It is recommended that LUNs be moved to other volumes.

Syslog Message

Volume %s (DSID %llu) contains more than the supported limit for LUNs (%d).

Parameters

volume_name (STRING): Name of the volume which contains more than the supported limit of LUNs.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume which contains more than the supported limit of LUNs.
max_create_limit (INT): The maximum number of LUNs that can be created in a volume.

LUN.vdisk.prov.cnt.exceeded

Severity

ERROR

Description

This message occurs when provisioning of metadata for some LUNs fails because the limit for provisioning LUNs in the volume has been exceeded.

Corrective Action

It is recommended that LUNs be moved to other volumes and then mapped using the 'lun map' command.

Syslog Message

Provisioning of metadata for some LUNs failed because the limit on the maximum supported LUNs in the volume %s (DSID %llu) has been exceeded. These LUNs cannot be discovered by hosts and will not be

accessible for I/O. Metadata cannot be provisioned for more than %d LUNs.

Parameters

volume_name (STRING): Name of the volume for which the LUN provisioning failed.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the LUN provisioning failed.
max_prov_limit (INT): Maximum number of LUNs for which metadata can be provisioned in a volume.

lun.vol events

LUN.vol.no.space

Severity

ERROR

Description

This message occurs when an operation on a LUN or NVMe namespace fails due to insufficient space in the volume.

Corrective Action

Add space to the volume and retry the operation.

Syslog Message

An operation on %s in volume %s (DSID %llu) failed due to lack of space in the volume.

Parameters

lun_path (STRING): Path for the LUN or NVMe namespace.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data Set ID (DSID) of the containing volume.

LUN.vol.proc.fail.no.space

Severity

ERROR

Description

This message occurs when the processing for LUNs or NVMe namespaces in the volume has failed due to lack of space in the volume or containing aggregate.

Corrective Action

Platform specifics: Unified ONTAP: Check accompanying event messages to determine whether the volume or containing aggregate lacks space. Add space to the volume or aggregate containing the volume as necessary before retrying the operation. If the volume was being transitioned, issue the command 'lun transition start' to retry; otherwise issue the command 'lun rescan -sync' to complete processing of LUNs in the volume. ASA r2: Contact NetApp technical support for assistance.

Syslog Message

Processing for LUNs or NVMe namespaces in volume %s (DSID %llu) failed due to lack of space.

Parameters

volume_name (STRING): Name of the volume for which the processing failed.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the processing failed.

lun.vtoc events

LUN.vtoc.rebuild.done

Severity

NOTICE

Description

This message occurs when the rebuilding of the Vdisk Table of Contents (VTOC) file is complete.

Corrective Action

(None).

Syslog Message

The VTOC has been rebuilt for the volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which the VTOC file was rebuilt.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which the VTOC file was rebuilt.

LUN.vtoc.version.mismatch

Severity

ERROR

Description

This message occurs when a version mismatch is detected for the Vdisk Table of Contents (VTOC) metafile.

Corrective Action

Rebuild the VTOC metafile for the volume by running the 'lun rescan -build-vtoc' command.

Syslog Message

A version mismatch has been detected for the VTOC metafile in volume %s (DSID %llu).

Parameters

volume_name (STRING): Name of the volume for which a version mismatch of the VTOC metafile has been detected.
volume_dsid (LONGINT): Data Set ID (DSID) of the volume for which a version mismatch of the VTOC metafile has been detected.

malloc events

malloc.failure events

malloc.failure

Severity

    ERROR

Description

    This event is generated if malloc is called unsafely.

Corrective Action

    (None).

Syslog Message

    %s %s %s %s %s %s %s %s %s %s %s

Parameters

    f2 (STRING): Third frame of backtrace.
    f3 (STRING): Fourth frame of backtrace.
    f4 (STRING): Fifth frame of backtrace.
    f5 (STRING): Sixth frame of backtrace.
    f6 (STRING): Seventh frame of backtrace.
    f7 (STRING): Eighth frame of backtrace.
    f8 (STRING): Ninth frame of backtrace.
    f9 (STRING): Tenth frame of backtrace.
    f10 (STRING): Eleventh frame of backtrace.
    f11 (STRING): Twelfth frame of backtrace.
    f12 (STRING): Thirteenth frame of backtrace.

malloc.failure.detail

Severity

    ERROR

Description

    This event is generated if malloc is called unsafely.

Corrective Action

    (None).

Syslog Message

    %s %s

Parameters

    description (STRING): Description of failure.
    buffers (STRING): Details of buffers that were predirtied.

master events

mav events

mav.disabled events

mav.disabled.used.console

Severity

ALERT

Description

This message occurs when multi-admin verification (MAV) is enabled, the bootarg "bootarg.multi_admin.enable" is set to false, and an operation that normally requires MAV approval is executed via the console. This results in an MAV request, executed from the console only, without requiring approval for the operation.

Corrective Action

Set the bootarg "bootarg.multi_admin.enable" to true or to unset as soon as it's no longer needed.

Syslog Message

The multi-admin verification (MAV) feature is disabled by a bootarg. An MAV rule is being triggered by the execution of "%s" command by "%s" user. Allow execution from the console.

Parameters

command (STRING): Command that was executed.
user (STRING): User that executed the command.

max events

max.fsa events

max.fsa.init.scan.limit

Severity

NOTICE

Description

This message occurs when the File System Analytics initialization scan cannot be started because the maximum number of concurrent initialization scans are already running on the cluster. File System Analytics cannot currently be enabled on the volume.

Corrective Action

Use the "volume analytics show" command to check for volumes with the File System Analytics state of "initializing" or "initialization_paused". Wait for a File System Analytics initialization scan to complete, and then try enabling File System Analytics again.

Syslog Message

Enabling File System Analytics on volume "%s" in SVM "%s" fails because the maximum number of concurrent initialization scans are already running on the cluster.

Parameters

volumeName (STRING): Name of the volume on which File System Analytics enable request fails.
vserverName (STRING): Name of the storage virtual machine (SVM) on which the volume resides.

maxcid events

maxcid.limit events

maxCID.limit.exceeded

Severity

ALERT

Description

This message occurs when system exceeds the maximum number of open network data connections on the node.

Corrective Action

Balance the network load across all nodes within the cluster in order to avoid disruptions in service. Contact NetApp technical support.

Syslog Message

Number of active data connections is %d and system limit is %d.

Parameters

activeCID (INT): Number of open data connections on the node.
maxCID (INT): Maximum allowed limit of data connections per node.

maxcid.threshold events

maxCID.threshold.exceeded

Severity

ERROR

Description

This message occurs when the system is approaching the maximum number of open data connections supported on the node.

Corrective Action

Balance the network load across all nodes within the cluster.

Syslog Message

Number of active data connections is %d and maximum supported threshold is %d.

Parameters

activeCID (INT): Number of open data connections on the node.
maxCIDThreshold (INT): Maximum threshold of data connections supported per node.

mc events

mc.channel events

mc.channel.create.failed

Severity

NOTICE

Description

This message occurs on failure in new channel creation in Mirror Cache.

Corrective Action

(None).

Syslog Message

Failure in Mirror Cache on new channel — Name: %s

Parameters

channel (STRING): Channel name

mc.post events

mc.post.replay.stats

Severity

NOTICE

Description

This message occurs post replay and conveys information regarding bdatas inserted, rejected, duplicate, hits and misses.

Corrective Action

(None).

Syslog Message

Mirror Cache post replay stats — Name: %s Inserted: %llu Rejected: %llu Duplicate: %llu Hits: %llu Misses: %llu.

Parameters

name (STRING): Aggr name
inserted (LONGINT): Bdatas inserted
rejected (LONGINT): Bdatas rejected
duplicate (LONGINT): Duplicate bdatas
hits (LONGINT): Bdata hits
misses (LONGINT): Bdatas misses

mcc events

mcc.auso events

mcc.auso.trigFailed

Severity

EMERGENCY

Description

This message occurs when a trigger for automatic unplanned switchover fails to issue the operation.

Corrective Action

Verify the health of each node and that automatic unplanned switchover is enabled on both by using the "metrocluster node show" command. Use the "metrocluster switchover -forced-on-disaster true" command to switch over the DR-site storage manually.

Syslog Message

A trigger for Automatic Unplanned Switchover failed to issue the operation. Reason: %s.

Parameters

probableCauseDescription (STRING): Further description of the probable cause.
alertId (STRING): Identifier for this condition.
alertingResource (STRING): Unique name of the resource responsible for this condition.
alertingResourceName (STRING): Name of the resource responsible for this condition.
possibleEffect (STRING): Possible effect of the failure.
probableCause (STRING): Probable cause of the failure.
additionalInfo (STRING): Additional information about this failure.

mcc.auso.triggered

Severity

NOTICE

Description

This message occurs when the node triggers an automatic unplanned switchover on detection of a failure of the DR partner node.

Corrective Action

(None).

Syslog Message

The node has triggered an Automatic Unplanned Switchover of the DR partner. Reason: %s. If Automatic Unplanned Switchover was triggered because of heartbeat loss, any ongoing dump on the partner may be aborted.

Parameters

cause (STRING): Cause for triggering automatic unplanned switchover.

mcc.check events

mcc.check.failed

Severity

ERROR

Description

This message occurs when the MetroCluster (tm) check job has failed to complete all checks for the system.

Corrective Action

Run "metrocluster operation history show" command to check the reason for this failure. Make sure that all nodes in each of the clusters are healthy, and both clusters are in normal mode using the "metrocluster node show" and "metrocluster show" commands. Then retry the operation using the command "metrocluster check run". If the problem persists, contact NetApp technical support.

Syslog Message

The MetroCluster (tm) check job has failed to complete all checks for the system in cluster %s.

Parameters

Cluster (STRING): Cluster where the check was running.

mcc.config events

mcc.config.assignConfigFail

Severity

ERROR

Description

This message occurs when the MetroCluster(tm) local node configuration assignment to persistent storage failed.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

(None).

Parameters

error (STRING): Description of assign config error.
nodeID (STRING): Node UUID.
dbladeID (STRING): Dblade UUID.

mcc.config.auso.enableIgnore

Severity

ALERT

Description

This message occurs when an attempt to enable automatic unplanned switchover fails because the capability has been manually disabled by the user or disabled because of a failed switchover or switchback operation.

Corrective Action

If you want to keep automatic switchover enabled, enable it using the advanced mode command "metrocluster modify -automatic-switchover-onfailure true".

Syslog Message

Failed to enable Automatic Unplanned Switchover because the capability has been manually disabled by the user or disabled because of a failed Switchover or Switchback operation.

Parameters

(None).

mcc.config.auso.stDisabled

Severity

ERROR

Description

This message occurs when automatic unplanned switchover capability is disabled.

Corrective Action

Run the "metrocluster modify -node-name <nodename> -automatic-switchover-onfailure true" command for each node in the cluster to enable automatic switchover.

Syslog Message

The state of Automatic Unplanned Switchover capability has been disabled.

Parameters

alertId (STRING): Identifier for this condition.
alertingResource (STRING): Unique name of the resource responsible for this condition.
alertingResourceName (STRING): Display name of the resource responsible for this condition.
possibleEffect (STRING): Possible effect of the event.
probableCause (STRING): Probable cause of the event.
probableCauseDescription (STRING): Further description of the probable cause.
additionalInfo (STRING): Additional information about this event.

mcc.config.auso.stEnabled

Severity

NOTICE

Description

This message occurs when automatic unplanned switchover capability is enabled.

Corrective Action

(None).

The state of Automatic Unplanned Switchover capability has been enabled.

Parameters

alertId (STRING): Identifier for this condition.
alertingResource (STRING): Unique name of the resource responsible for this condition.

mcc.config.bootConfigNotRead

Severity

ALERT

Description

This message occurs when the MetroCluster(tm) configuration cannot be read from persistent storage. This could be because the partner has active reservations on the disk, the root aggregate is not assimilated, or the configuration has not been performed on the system yet. The system will try to retrieve or set the configuration try to retrieve or set the configuration automatically later during boot.

Corrective Action

If the problem persists, contact NetApp technical support for assistance in resolving this issue.

Syslog Message

Configuration could not be read from persistent storage due to internal error %s. The system will try to retrieve or set the configuration automatically later, during boot.

Parameters

error (STRING): Actual error that caused configuration read to fail.

mcc.config.checkPartnerError

Severity

ERROR

Description

This message occurs when an error is found during a MetroCluster(tm) configuration check. The checks include partner operational status and valid disaster recovery (DR) group configurations.

Corrective Action

Make sure that all of the nodes are online and healthy by running the "cluster show" command and verifying that the "Health" and "Eligibility" fields displayed as true. Check the switch and controller configuration and make sure that all of the controllers in the DR group and HA/DR Interconnect ports are properly connected for DR group communication.

Syslog Message

(None).

Parameters

partner_names (STRING): List of disaster recovery partner names.
error (STRING): Description of the error that occurred.

mcc.config.disableDrMirror

Severity

INFORMATIONAL

Description

This message occurs when NVlog mirroring to the disaster recovery(DR) partners gets disabled persistently in a MetroCluster(tm) configuration.

Corrective Action

(None).

Syslog Message

(None).

Parameters

reason (STRING): Reason the disaster recovery (DR) NVlog mirroring is disabled persistently.

mcc.config.disableMirrorMem

Severity

INFORMATIONAL

Description

This message occurs when NVlog mirroring to the disaster recovery(DR) partners gets disabled in a MetroCluster(tm) configuration.

Corrective Action

(None).

Syslog Message

(None).

Parameters

reason (STRING): Reason the DR NVlog mirroring is disabled in memory.

mcc.config.drPartner.mbxFail

Severity

ALERT

Description

This message occurs when a node in a 2-node MetroCluster(tm) configuration fails to access it's DR partner's mailbox. This may impact automatic unplanned switchover.

Corrective Action

(None).

Syslog Message

Read of DR partner's mailbox failed with error (%d).

Parameters

err (INT): Error returned from mailbox access.

mcc.config.drPartner.mbxRead

Severity

INFORMATIONAL

Description

This message occurs when a node in 2-node MetroCluster(tm) configuration is successfully able to access it's DR partner's mailbox.

Corrective Action

(None).

Syslog Message

Read of DR partner's mailbox successful.

Parameters

(None).

mcc.config.enableDrMirror

Severity

INFORMATIONAL

Description

This message occurs when NVlog mirroring to the disaster recovery(DR) partners gets persistently enabled in a MetroCluster(tm) configuration.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mcc.config.enableMirrorMem

Severity

INFORMATIONAL

Description

This message occurs when NVlog mirroring to the disaster recovery(DR) partners gets enabled in a MetroCluster(tm) configuration.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mcc.config.headswapComplete

Severity

NOTICE

Description

This message occurs when headswap update completes successfully on a node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mcc.config.headswapMsgSent

Severity

NOTICE

Description

This message occurs when a headswap HA message is successfully sent to a partner node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

role (INT): Role of the node.

mcc.config.headswapNoNotify

Severity

ERROR

Description

This message occurs when the MetroCluster(tm) node cannot communicate with one or more of its partners after a headswap. In a MetroCluster configuration, partners need to be informed of the old and new system ID of the local node through an HA message, so that they use the correct partner system ID during disaster recovery(DR) operations. Data ONTAP® takes appropriate recovery actions.

Corrective Action

Other than making sure that all of the partners are online, there is no explicit user intervention required; the node automatically retries the operation at regularly scheduled intervals (every 30 seconds).

Syslog Message

Local node system ID changed from %d to %d. Local node could not inform its HA or DR partner node of this change due to error %s.

Parameters

old_system_id (INT): Old system ID of the node.
new_system_id (INT): New system ID of the node.
error (STRING): Internal error description identifying the reason for the failure.

mcc.config.headswapPartnerEr

Severity

ERROR

Description

This message occurs when the partner returns a failure during a MetroCluster(tm) headswap configuration update. This can be due to configuration mismatches on the remote partner, disk ownership reassignment failure, or persistent storage write failure.

Corrective Action

This could potentially be because the partner that failed was not fully functional or was operating in a degraded state. Make sure that the partner is online by issuing the "metrocluster show" and the "metrocluster node show" command. The partner configuration update will be retried at regular intervals automatically. In case of other configuration mismatch failure, check the relevant subsystem cited in the error and run the "disk show" command to examine the disk state. If the problem persists, contact NetApp technical support.

Syslog Message

Partner %s failed to update configuration due to error %s.

Parameters

partner (STRING): Name of the partner node.
error (STRING): Error description returned by the partner.

mcc.config.headswapRevert

Severity

NOTICE

Description

This message occurs when the receiver of a headswap HA message detects that the old head was brought back in before headswap processing completed. The receiver will undo any nvram id update it had processed earlier.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_sys_id (INT): Old system id received from the HA message
new_sys_id (INT): New system id received from the HA message

mcc.config.locHeadswapDetect

Severity

NOTICE

Description

This message occurs when a headswap is detected on the local node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

old_system_id (INT): Old system ID of the node.
new_system_id (INT): New system ID of the node.

mcc.config.restoreFailure

Severity

NOTICE

Description

Error returned while recovering the Configuration.

Corrective Action

(None).

Syslog Message

MetroCluster configuration was not restored from persistent source because of reason :%d.

Parameters

err (INT): Error returned while recovering the mailbox.

mcc.config.restoreSuccessful

Severity

INFORMATIONAL

Description

This message occurs when the MetroCluster(tm) configuration is successfully restored from an alternate persistent configuration source.

Corrective Action

(None).

Syslog Message

MetroCluster configuration was successfully restored from persistent source %s.

Parameters

source (STRING): Source from which the MetroCluster configuration was retrieved.

mcc.config.selfNodeInvalid

Severity

ERROR

Description

This message occurs when the local node UUID and the node UUID returned by the Connectivity, Liveness, Availability Monitor (CLAM) do not match. This is a configuration error and can result in failures during disaster recovery operations.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Configuration error: Local node UUID and the node UUID reported by CLAM do not match.

Parameters

local_node_uuid (STRING): Local node UUID.
clam_node_uuid (STRING): Node UUID returned by the CLAM.

mcc.config.sysidNoNotify

Severity

ERROR

Description

This message occurs when the local node is unable to notify its HA or DR partners of its system ID after a reboot.

Corrective Action

Verify that the HA or DR partner node is healthy and can be reached over the intercluster network.

Syslog Message

The node could not notify its nvram system id to partner %s. Error: %s.

Parameters

partner (STRING): Name of the partner node.
error (STRING): Error description.

mcc.config.teardown

Severity

INFORMATIONAL

Description

This message is generated whenever CTRL connections to MetroCluster(tm) partners are torn down.

Corrective Action

(None).

Syslog Message

(None).

Parameters

reason (STRING): Reason for tearing down the CTRL connections.

mcc.config.update.role

Severity

INFORMATIONAL

Description

This message is generated whenever the roles of CTRL connections to MetroCluster(tm) partners are updated.

Corrective Action

(None).

Syslog Message

(None).

Parameters

reason (STRING): Reason for updating the role of the CTRL connections.

mcc.config.vso.disabled

Severity

NOTICE

Description

This message occurs when the "vserver configuration override" command is disabled for MetroCluster over IP after controller replacement operations are completed.

Corrective Action

(None).

Syslog Message

MetroCluster over IP Vserver configuration override is disabled.

Parameters

(None).

mcc.config.vso.enabled

Severity

NOTICE

Description

This message occurs when the "vserver configuration override" command is enabled for MetroCluster over IP controller replacement operations.

Corrective Action

(None).

Syslog Message

MetroCluster over IP Vserver configuration override is enabled.

Parameters

(None).

mcc.ctlbe events

mcc.ctlbe.IODelayed

Severity

INFORMATIONAL

Description

SCSI IO for RSM is delayed significantly in the iSCSI stack.

Corrective Action

(None).

Syslog Message

(None).

Parameters

devSerial (STRING): Device Serial Number
lunId (INT): The LUN ID.
cdb (STRING): A string containing the opcode byte of the CDB.
delay (LONGINT): The delay in milliseconds experienced by this IO in the software iSCSI stack.

mcc.ctlbe.IOResponseDelayed

Severity

INFORMATIONAL

Description

SCSI IO for RSM is delayed significantly in the storage stack.

Corrective Action

(None).

(None).

Parameters

devSerial (STRING): Device Serial Number
lunId (INT): The LUN ID.
cdb (STRING): A string containing the opcode byte of the CDB.
delay (LONGINT): The delay in milliseconds experienced by this IO in the D-blade storage stack.

mcc.drdom events

mcc.drdom.diskOwnerChange

Severity

INFORMATIONAL

Description

This message occurs when disk ownership changes are made by the disaster recovery disk ownership manager (DRDOM).

Corrective Action

(None).

Syslog Message

(%d) disks belonging to DR partner (%ld) underwent ownership change due to (%s).

Parameters

disk_count (INT): Number of disks that underwent ownership change.
dr_partner_system_id (LONGINT): System ID of the DR partner whose disks underwent ownership change.
reason (STRING): Reason for the disk ownership change.

mcc.drdom.diskReserveFail

Severity

ERROR

Description

This message occurs when one or more disks fails a disk reservation request from the disaster recovery disk ownership manager (DRDOM).

Corrective Action

Make sure that none of the available DR partner disks are not in a failed or inconsistent state. Contact NetApp technical support if failed or misbehaving disks cannot be identified.

Syslog Message

%d/%d DR disks failed disk reservation request from DRDOM, %d local disks.

Parameters

error_count (INT): Number of disks that failed disk reservation.
disk_num (INT): Number of disks that have DR ownership.

local_disks (INT): Number of disks that have local ownership.

mcc.drdom.disksAssignFail

Severity

ERROR

Description

This message occurs when the disaster recovery disk ownership manager (DRDOM) fails to assign the ownership of one or more disks in the disk list enrolled in this operation to be reassigned.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

DRDOM failed to assign the ownership of one or more disks in the disk list involved in disk ownership reassign request message during %s.

Parameters

operation (STRING): The MetroCluster(tm) DR operation that issued the "assign disks" request.
disks_in_request (INT): Total number of disks for which the disk ownership change is requested.
disks_failed_request (INT): Total number of disks for which the disk ownership change request failed.
error_code (INT): Internal error code for the failure.

mcc.drdom.hsAssignFail

Severity

ERROR

Description

This message occurs when the node fails to change disk ownership for disaster recovery (DR) partner disks after a headswap. This can occur if the node is in switchover or it has disks that are left behind from previous DR operations.

Corrective Action

Make sure that the DR partner disks with current-owner as local node are online and not in failed state or inconsistent state. Contact NetApp technical support if the failed or misbehaving disks cannot be identified.

Syslog Message

Node failed to change disk ownership for DR partner disks after a headswap.

Parameters

disks_in_request (INT): Total number of disks for which the disk ownership change is requested.
disks_failed_request (INT): Total number of disks for which the disk ownership change request failed.
error_code (INT): Internal error code for the failure.

mcc.drgroup events

mcc.drgroup.fetch.failed

Severity

INFORMATIONAL

Description

This message occurs when MCC DR group information cannot be retrieved from RDB tables.

Corrective Action

(None).

Syslog Message

Unable to fetch DR-group information from RDB, error: %s.

Parameters

reason (STRING): Reason why RDB operation failed to fetch DR-group information.

mcc.drmsg events

mcc.drmsg.received

Severity

INFORMATIONAL

Description

This message occurs when a DR message is successfully received from a DR partner node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

version (INT): Version of the DR message.
type (STRING): Type of message sent.
request (STRING): Type of request being sent.
seq_num (LONGINT): Sequence number of the message.
recv_sysid (LONGINT): System ID of receiving Node
sysid (LONGINT): System ID of sending node.
recv_time (LONGINT): Time when message was sent.
send_time (LONGINT): Time when message was sent.
status (STRING): Status of the DR message.
fsm_state (STRING): FSM state of the responding node.
sb_reason (STRING): SB reason if any specified.
dr_op_state (INT): DR operation state of the responding node.
ha_fw_state (STRING): HA firmware state of the responding node.

mcc.drmsg.sent

Severity

INFORMATIONAL

Description

This message occurs when a DR message is successfully sent to a partner node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

version (INT): Version of the DR message.
type (STRING): Type of message sent.
request (STRING): Type of request being sent.
seq_num (LONGINT): Sequence number of the message.
sysid (LONGINT): System ID of sending Node.
send_time (LONGINT): Time when message was sent.

mcc.drsom events

mcc.drsom.disk.filter.fail

Severity

INFORMATIONAL

Description

This message occurs when it cannot be determined whether a disk belongs to a root aggregate.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk (STRING): Name of the disk.
op (STRING): Operation during which this check failed.
status (INT): Status of the check that failed.

mcc.drsom.disk.skipped

Severity

INFORMATIONAL

Description

This message occurs when disaster recovery switchover manager determines that a disk needs to be skipped from an assign request.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk (STRING): Name of the disk.
op (STRING): Operation during which this check failed.
reason (STRING): Reason why the disk was skipped.

mcc.drsom.fsm.execute

Severity

INFORMATIONAL

Description

This message occurs when the disaster recovery Switchover Monitor(DRSOM) FSM (Finite State Machine) starts processing an event.

Corrective Action

(None).

Syslog Message

DRSOM FSM state is (%s) and it will process the event (%s). Whether this event will be processed for the DR auxiliary partner: (%s)

Parameters

fsm_state (STRING): Current state of the DRSOM FSM.
fsm_event (STRING): Event to be processed by the DRSOM FSM.
DR_aux (STRING): Indication of whether the event will be processed for the DR auxiliary partner.

mcc.drsom.fsm.invalid.state

Severity

ALERT

Description

This message occurs when the disaster recovery (DR) Switchover Monitor (DRSOM) FSM (Finite State Machine) reaches an invalid state.

Corrective Action

If this problem is seen persistently, contact NetApp technical support for assistance in resolving this issue.

Syslog Message

MCC DRSOM FSM state saw an invalid transition from %s to %s.

Parameters

prev_st (STRING): Previous DRSOM FSM state.
st (STRING): Current DRSOM FSM state.

mcc.drsom.fsm.invalidState

Severity

ERROR

Description

This message occurs when an unexpected disaster recovery Switchover Monitor(DRSOM) FSM (Finite State Machine) event is generated.

Corrective Action

This can happen in cases where a new DR operation was issued before the previous one could finish and it might require a forced-recovery operation. Contact NetApp technical support for assistance in resolving this issue.

Syslog Message

DRSOM FSM event (%s) generated in state (%s) will cause an invalid FSM state transition.

Parameters

fsm_event (STRING): DRSOM FSM event.
fsm_state (STRING): DRSOM FSM state in which the event is generated.

mcc.drsom.fsm.sb.rec.pending

Severity

ALERT

Description

This message occurs when the disaster recovery switchover monitor (DRSOM) transitions to a switchback recovery pending state.

Corrective Action

If this node is booting up for the first time after a disaster, no action is required. If not, please check the states of all the nodes and contact NetApp technical support if they are incorrect.

Syslog Message

This node has entered the Switchback Recovery Pending State.

Parameters

(None).

mcc.drsom.fsmState.EarlySb

Severity

INFORMATIONAL

Description

This message occurs when the disaster recovery switchover monitor (DRSOM) recovers from unexpected error conditions by transitioning to perform an early switchback. An early switchback is performed in the following three cases: a node panics while processing a switchover; a node panics or reboots while retrying a switchover operation; or a node either encounters a subsystem failure, panics, or reboots while aborting a switchover operation. The switchover was reverted and the DRSOM state on all nodes is 'normal'.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mcc.drsom.mbxRecovery

Severity

INFORMATIONAL

Description

This message occurs when the disaster recover Switchover Monitor(DRSOM) FSM (Finite State Machine) state stored persistently in the mailbox is inconsistent with the DRC (DR Coordinator) and has been recovered.

Corrective Action

(None).

Syslog Message

DRSOM FSM state stored in the mailbox is inconsistent with the DRC. It has been recovered and intialized to %s.

Parameters

next_fsm_state (STRING): State to which the DRSOM FSM will be initialized.

mcc.drsom.process.op.fail

Severity

ALERT

Description

This message occurs when the disaster recovery (DR) Switchover Monitor (DRSOM) cannot perform the DR operation.

Corrective Action

If this problem is seen persistently, contact NetApp technical support for assistance in resolving this issue.

Syslog Message

MCC state machine received invalid operation %s while it was in state %s.

Parameters

op (STRING): DR operation issued.
st (STRING): Current FSM (Finite State Machine) state.

mcc.drsom.sbRecSt.change

Severity

INFORMATIONAL

Description

This message occurs when there is a change in the disaster recovery Switchover Monitor(DRSOM) switchback recovery state.

Corrective Action

(None).

Syslog Message

Switchback recovery state changed from (%d) to (%d) due to (%s).

Parameters

old_state (INT): Previous switchback recovery state.
new_state (INT): New switchback recovery state.
reason (STRING): Reason for change of state.

mcc.drsom.sstbl.configErr

Severity

ERROR

Description

This message occurs during switchback processing, when the disaster recovery(DR) partner cannot be contacted to confirm that it is in a valid MetroCluster(tm) configuration state.

Corrective Action

Make sure that the DR partner is online and accessible by this node.

Syslog Message

(None).

Parameters

partner (STRING): Name of the failed partner.

mcc.drsom.sstbl.sanownCompEr

Severity

ERROR

Description

This message occurs during switchback processing, when the disaster recover(DR) partner cannot be contacted to enable or suspend a sanown completion event.

Corrective Action

Make sure that the DR partner is online and accessible by this node.

Syslog Message

(None).

Parameters

operation (STRING): Disable or enable completion event.
partner (STRING): Name of the failed partner.

mcc.drsom.sstblRunFailure

Severity

ERROR

Description

This message occurs when a particular subsystem cannot proceed with the disaster recovery (DR) operation.

Corrective Action

Refer to the subsystem-specific error that would have been logged before this message.

Syslog Message

(None).

Parameters

dr_operation (STRING): DR operation.
sub_system (STRING): Name of the subsystem that encountered the failure.

mcc.drsom.watch.conflict

Severity

INFORMATIONAL

Description

This message shows drsom watchdog information on conflicting operations

Corrective Action

(None).

Syslog Message

(None).

Parameters

enabled (INT): Current state of watchdog.
extended (INT): Current extended state of watchdog.
last_update_time (LONGINT): Last update time.
current_time (LONGINT): Current time.
last_update_count (LONGINT): Last update count.
last_thread (LONGINT): ID of last thread to update.
last_thread_info (STRING): Text describing last udpate.
curr_thread_info (STRING): Text describing current update.

mcc.encryption events

mcc.encryption.disabled

Severity

NOTICE

Description

This message occurs when the encryption for NVLog and storage data in a MetroCluster (tm) configuration is disabled.

Corrective Action

(None).

Syslog Message

The MetroCluster encryption feature has been disabled.

Parameters

(None).

mcc.fabricpool events

mcc.fabricpool.license.absent

Severity

ERROR

Description

This message occurs when a FabricPool license exists on only one of the two sites of a MetroCluster(tm) configuration.

Corrective Action

Install a FabricPool license on the cluster that is missing the license.

Syslog Message

The FabricPool license is installed on only one site of this MetroCluster configuration. The license is missing on cluster %s (ID: %s).

Parameters

cluster_name (STRING): Name of the cluster which is missing the license.
cluster_uuid (STRING): UUID of the cluster.

mcc.fabricpool.license.diff

Severity

ERROR

Description

This message occurs when the FabricPool license capacity or term limits are different for the two sites of a MetroCluster(tm) configuration.

Corrective Action

Install a new license on one of the clusters so that the license limits match.

Syslog Message

The FabricPool license limits are different for the two sites of this MetroCluster configuration. The license limits are %s and %s on site %s and %s and %s on site %s.

Parameters

local_license_limit (STRING): License capacity limit from the local cluster.
local_term_limit (STRING): License term limit from the local cluster.
local_cluster_name (STRING): Name of the local cluster.
remote_license_limit (STRING): License capacity limit from the remote cluster.
remote_term_limit (STRING): License term limit from the remote cluster.
remote_cluster_name (STRING): Name of the remote cluster.

mcc.fabricpool.mirror.missing

Severity

ALERT

Description

This message occurs when a FabricPool in a MetroCluster configuration does not have a mirror object store attached.

Corrective Action

Use the "storage aggregate object-store mirror" command to add a mirror object store to the FabricPool.

Syslog Message

FabricPool: "%s" UUID: "%s" in a MetroCluster configuration does not have synchronous data protection enabled because the mirror object store is missing.

Parameters

aggr (STRING): Name of the FabricPool.
UUID (STRING): UUID of the FabricPool.

mcc.forced events

mcc.forced.auso.issued

Severity

NOTICE

Description

This message occurs when the node triggers a forced automatic unplanned switchover because the "allow-auto-forced-switchover" option is true.

Corrective Action

(None).

Syslog Message

The node has triggered a forced automatic unplanned switchover of the DR partner. Reason: "%s".

Parameters

reason (STRING): Reason for triggering a forced automatic unplanned switchover with "allow-auto-forced-switchover" option.

mcc.hwassist events

mcc.hwassist.trap.AUSO

Severity

NOTICE

Description

This message occurs when a HW assist trap is received from the Service Processor of the DR-partner and is used to trigger an Automatic SwitchOver.

Corrective Action

(None).

Syslog Message

HW assist trap of type=%s, severity=%s received for event=%s from sysid=%s.

Parameters

type (STRING): Type of event, such as system_down.
severity (STRING): Severity of the event, such as alert.
event (STRING): Specific event, such as power_loss.
sysid (STRING): System-id of the node generating the event.

mcc.ic events

mcc.ic.process.node.adv

Severity

INFORMATIONAL

Description

This message occurs when the MetroCluster(tm) config module receives a node advertisement from any of its partners.

Corrective Action

(None).

Syslog Message

(None).

Parameters

sys_id (LONGINT): System id of the node sending the advertisements.
is_local_node_assigned (INT): Boolean specifying whether the local node has joined the cluster.

is_partner_assigned (INT): Boolean specifying whether the node sending advertisements has joined the cluster.

mcc.ipspace events

mcc.ipspace.not.found

Severity

ERROR

Description

This message occurs when the IPspace is not found in a MetroCluster(tm) configuration while replicating the object store configuration. Until this is resolved, some MetroCluster and FabricPool operations will fail.

Corrective Action

Create the missing MetroCluster IPspace. The configuration replication task will be completed automatically.

Syslog Message

Object store "%s" configuration replication failed because IPspace "%s" was not found in cluster "%s".

Parameters

object_store_name (STRING): Name of the object store.
ipspace_name (STRING): Name of the IPspace.
cluster_name (STRING): Name of the cluster.

mcc.kill events

mcc.kill.received

Severity

INFORMATIONAL

Description

This message occurs when the node is halting because it received a "kill" message from the disaster recovery (DR) partner.

Corrective Action

(None).

Syslog Message

Node is halting because a kill message with reason %s has been received from the DR partner with system ID %ld.

Parameters

reason (STRING): Reason for halting the node.
sender_sysid (LONGINT): System ID of the sender.

mcc.lunmgr events

mcc.lunmgr.lunid_alloc_failure

Severity

ERROR

Description

This message occurs when failing to allocate a CTL Target LUN ID to a target disk

Corrective Action

This indicates an internal error during the discovery of Target LUN devices.

Syslog Message

Device S/N %s - Failed to allocate a LUN ID

Parameters

device_serial_number (STRING): Device serial number

mcc.network events

mcc.network.congestion

Severity

NOTICE

Description

This message occurs when a MetroCluster over IP configuration detects network congestion over the inter-cluster links (ISL) that connect sites and an action is taken to reduce further network congestion.

Corrective Action

Verify that network between MetroCluster sites is following minimum SLA requirements and fix any such violations if needed. If the issue persists, contact NetApp technical support.

Syslog Message

Network congestion detected. Action taken: %s.

Parameters

action_taken (STRING): Action taken to reduce network congestion.

mcc.notify events

mcc.notify.auto_heal_queue_failure

Severity

ERROR

Description

Failed to queue the "MetroCluster Auto Heal" job

Corrective Action

Manually complete the healing phase using the command "metrocluster heal aggregates" and "metrocluster heal root-aggregates"

Syslog Message

(None).

Parameters

retries_attempted (INT): Number of retries attempted

mcc.nso events

mcc.nso.abort.dump

Severity

NOTICE

Description

This message occurs when dump/restore is aborted during a MetroCluster switch-over operation.

Corrective Action

(None).

Syslog Message

Dump/restore operations were aborted because %s is in progress.

Parameters

nso (STRING): Describes whether a MetroCluster switch-over operation is progress.

mcc.nso.veto.repl

Severity

NOTICE

Description

This message occurs when an MetroCluster(tm) switch-over is vetoed by a critical replication transfer (for example, volume move in the cutover phase).

Corrective Action

Either abort the replication transfer that is preventing the MetroCluster switch-over from being completed, retry the MetroCluster switch-over operation with the '-override-vetoes true' option, or wait for the transfer to finish.

Syslog Message

Could not complete switch-over because a replication transfer with UUID %s is in progress.

Parameters

transferId (STRING): UUID of the SnapMirror® replication transfer that vetoed MetroCluster switch-over.

mcc.nvmeof events

mcc.nvmeof.port.modify

Severity

NOTICE

Description

This message occurs when the mode of an NVMe-oF port is changed.

Corrective Action

(None).

Syslog Message

Changing NVMe-oF port %s to %s mode.

Parameters

port (STRING): Name of port being configured.
mode (STRING): Mode in which to configure port: network or storage.

mcc.nvmeof.rdma.disconnect.event

Deprecated

Deprecated as of version 9.13.1.

Severity

NOTICE

Description

This message occurs when the NVMe-oF driver detects an RDMA disconnect. There might be a decrease in performance while reconnecting.

Corrective Action

(None).

Syslog Message

NVMe-oF RDMA disconnect on subnqn %s, controller ID %d, qpair ID %d.

Parameters

subnqn (STRING): Subsystem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.

mcc.nvmeof.rdma.disconnect.status

Deprecated

Deprecated as of version 9.13.1.

Severity

NOTICE

Description

This message occurs when the NVMeoF driver detects a command that finishes with a disconnect status. There might be a decrease in performance while reconnecting.

Corrective Action

(None).

Syslog Message

NVMe-oF disconnect on subnqn %s, controller ID %d, qpair ID %d.

Parameters

subnqn (STRING): Subsystem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.

mcc.nvmeof.subsystem.add

Severity

NOTICE

Description

This message occurs when an NVMe-oF subsystem is added.

Corrective Action

(None).

Syslog Message

NVMe-oF subsystem added at address %s.

Parameters

address (STRING): IP address of susbsystem.

mcc.nvmeof.subsystem.delete

Severity

NOTICE

Description

This message occurs when an NVMe-oF subsystem is deleted.

Corrective Action

(None).

Syslog Message

NVMe-oF subsystem deleted at address %s.

Parameters

address (STRING): IP address of susbsystem.

mcc.nvmeof.timeout

Severity

NOTICE

Description

This message occurs when the NVMeoF driver detects a timeout on a request. There might be a decrease in performance while retrying.

Corrective Action

(None).

Syslog Message

Timeout on subnqn %s, controller ID %d, qpair ID %d, sequence number %d.

Parameters

subnqn (STRING): Subsytem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.
cid (INT): NVMe-oF CID.

mcc.sb events

mcc.sb.abort.dump

Severity

NOTICE

Description

This message occurs when dump/restore is aborted during a MetroCluster switchback operation.

Corrective Action

(None).

Syslog Message

Dump/restore operations were aborted because %s is in progress.

Parameters

sb (STRING): Describes whether a MetroCluster switchback operation is progress.

mcc.sb.veto.repl

Severity

NOTICE

Description

This message occurs when an MetroCluster(tm) switchback is vetoed by a critical replication transfer (for example, volume move in the cutover phase).

Corrective Action

Either abort the replication transfer that is preventing the MetroCluster switchback from being completed, retry the MetroCluster switchback operation with the '-override-vetoes true' option, or wait for the transfer to finish.

Syslog Message

Could not complete switchback because a replication transfer with UUID %s is in progress.

Parameters

transferId (STRING): UUID of the SnapMirror® replication transfer that vetoed the MetroCluster switchback.

mcc.sbca events

mcc.sbca.mdvNotAvailable

Severity

ERROR

Description

This message occurs when a MetroCluster (tm) system metadata volume that provides storage for the configuration replication services is not available.

Corrective Action

Contact technical support for assistance.

Syslog Message

A MetroCluster (tm) system metadata volume is not available in cluster %s.

Parameters

Cluster (STRING): Cluster attempting to use the volume.

mcc.scsipd events

mcc.scsipd.iScsiSessionReconnectDestroySim

Severity

NOTICE

Description

iSCSI session maintenance thread was signaled to reconnect and destroy SIM paths.

Corrective Action

(None).

Syslog Message

(None).

Parameters

> **watchdogIdx** (INT): The watchdog thread index for the mcc_scsipd driver.
> **watchdogTimeLimit** (INT): The time limit in seconds that the watchdog thread waits before signaling the iSCSI session maintenace thread.

mcc.so events

mcc.so.nodeObjectLmt.chkFail

Severity

> ALERT

Description

> This message occurs when a MetroCluster(tm) switchover operation cannot be performed on this node because it is in the takeover state and one of the nodes in its disaster recovery(DR) group has the "node-object-limit" MetroCluster configuration option set to off.

Corrective Action

> Use the "storage failover giveback" command to take this node out of takeover state.

Syslog Message

> Switchover operation cannot be performed on this node because it is in the takeover state and one of the nodes in its DR group has the "node-object-limit" MetroCluster configuration option set to off.

Parameters

> (None).

mcc.switchover events

mcc.switchover.mdvInNvfailedState

Severity

> ERROR

Description

> This message occurs when a MetroCluster switchover operation finds a system metadata volume, used by config replication applications, in the nvfailed state.

Corrective Action

> Verify the configuration.

Syslog Message

> The 'in-nvfailed-state' was cleared on MetroCluster system metadata volume '%s'. The system will attempt to replicate all recent configuration updates (if any) to the local cluster. After the process completes, verify the configuration.

Parameters

> **Volume** (STRING): Volume

mcc.toomany events

mcc.toomany.vols.per.aggr

Severity

ALERT

Description

This message occurs when a volume is added to an aggregate in which the recommended maximum number of volumes for an aggregate in a MetroCluster setup is exceeded. An excessive number of volumes in a MetroCluster aggregate can result in high failover times, which may disrupt data availability from the affected node.

Corrective Action

Re-distribute the volumes among the aggregates to comply with the volume limit per aggregate in a MetroCluster setup. The number of volumes in an aggregate can be found by using the "aggregate show -fields volcount" command. Volumes can be moved between aggregates by using the "volume move start -vserver <vserver_name> -volume <vol_name> -destination-aggregate <destination_aggregate>" command.

Syslog Message

MetroCluster protected aggregate %s has volume count %d, which exceeds the recommended maximum %d.

Parameters

aggregate (STRING): Name of the aggregate.
current_volume (INT): Current number of volumes on the aggregate.
volume_limit (INT): Recommended maximum number of volumes per aggregate.

mct events

mct.channel events

mct.channel.destroy

Severity

NOTICE

Description

This message occurs when the Mirror Cache Transport layer destroys a communication channel between two nodes.

Corrective Action

(None).

Syslog Message

Mirror Cache transport destroyed channel '%s'.

Parameters

channel (STRING): Name of the data channel.

mct.control events

mct.control.error

Severity

NOTICE

Description

This message occurs when the Mirror Cache Transport layer encounters an error in its control group.

Corrective Action

(None).

Syslog Message

Mirror Cache transport control error: '%s'.

Parameters

error_message (STRING): Details for the encountered error.

mdb events

mdb.exit events

mdb.exit

Severity

EMERGENCY

Description

This message occurs when the management process exits to recover from a database error.

Corrective Action

If the problem persists, contact NetApp technical support for assistance.

Syslog Message

MDB %s process exit due to "%s". Error code: %d (%s).

Parameters

name (STRING): Name of the M-Host process using the management database.
table_or_operation (STRING): Database table name or operation that encountered the error.
error_code (INT): Numeric error code reported by the management database.
error_msg (STRING): Error message reported by the management database.

mes_dimm events

mes_dimm.error events

mes_dimm.error

Severity

ALERT

Description

This message appears when an error is encountered by MES (Memory Error Statistics).

Corrective Action

DIMM error reported. Please contact NetApp technical support for further assistance.

Syslog Message

DIMM error - %s.

Parameters

error (STRING): Error message from Data ONTAP.

mgmt events

mgmt.aba events

mgmt.aba.abortCloneParent

Severity

INFORMATIONAL

Description

This message occurs when Auto Balance Aggregate initiates a move of a volume that was then changed to a FlexClone® parent.

Corrective Action

(None).

Syslog Message

The Auto Balance Aggregate initiated move of volume %s from aggregate %s to aggregate %s was aborted when the move job detected that the volume was now a FlexClone parent.

Parameters

volume (STRING): Name of the volume.
srcAggregate (STRING): Name of the source aggregate.
dstAggregate (STRING): Name of the destination aggregate.

mgmt.aba.abortMirrorMove

Severity

INFORMATIONAL

Description

This message occurs when Auto Balance Aggregate initiates a move of a volume that was then changed to be part of a SnapMirror® relationship".

Corrective Action

(None).

Syslog Message

The Auto Balance Aggregate initiated move of volume %s from aggregate %s to aggregate %s was aborted when the move job detected that the volume was now part of a SnapMirror relationship.

Parameters

volume (STRING): Name of the volume.
srcAggregate (STRING): Name of the source aggregate.
dstAggregate (STRING): Name of the destination aggregate.

mgmt.aba.move.unbalanced

Severity

INFORMATIONAL

Description

This message occurs when Auto Balance Aggregate is running in auto mode and identifies an aggregate in which the used space has exceeded the high-water mark. Auto Balance Aggregate attempts to trigger moves to lower the aggregate's usage below the threshold.

Corrective Action

Use the "volume move show" command to monitor active moves.

Syslog Message

Auto Balance Aggregate has detected that aggregate %s has exceeded the threshold of %jd. The aggregate currently shows a usage of %jd.

Parameters

aggr (STRING): Name of the aggregate.
usedSpace (LONGINT): Aggregate's used space.
threshold (LONGINT): Configured high-water mark.

mgmt.aba.moveVolume

Severity

INFORMATIONAL

Description

This message occurs when Auto Balance Aggregate identifies a volume that can be moved to alleviate a low-space condition with an aggregate. The move will be initiated by Auto Balance Aggregate and can be monitored by using the "volume move show" command.

Corrective Action

(None).

Syslog Message

Auto Balance Aggregate is moving volume %s in Vserver %s from aggregate %s to aggregate %s. Upon completion of the move, the source aggregate is projected to be %d percent full and the destination aggregate is projected to be %d percent full.

Parameters

volume (STRING): Volume that will be moved.
vserver (STRING): Vserver hosting the volume.
srcAggr (STRING): Aggregate the volume will be moved from.
dstAggr (STRING): Aggregate the volume will be moved to.
afterSourceSpace (INT): Projected percentage of used space in the source aggregate after the move is performed.
afterDestSpace (INT): Projected percentage of used space in the destination aggregate after the move is performed.

mgmt.aba.noMovableVols

Severity

ERROR

Description

This message occurs when Auto Balance Aggregate identifies an aggregate that is unbalanced but cannot identify a volume to move from that aggregate. Some of the more common reasons this can occur for an aggregate are that its volumes are being heavily accessed, its volumes have been recently moved, or Auto Balance Aggregate cannot identify an aggregate to move to.

Corrective Action

Manually inspect the aggregate to determine whether any volumes can be moved.

Syslog Message

Auto Balance Aggregate could not find any volumes to move from aggregate %s. The aggregate's calculated space is %jd and the threshold is %jd.

Parameters

aggregate (STRING): Name of the aggregate.
usedSize (LONGINT): Recorded used size.
threshold (LONGINT): Configured threshold.

mgmt.aba.rcmd.unbalanced

Severity

ERROR

Description

This message occurs when Auto Balance Aggregate is running in recommend mode and identifies an aggregate in which the used space has exceeded the high-water mark.

Corrective Action

Use the "volume move recommend show" command to see the list of recommended actions.

Syslog Message

Auto Balance Aggregate has detected that aggregate %s has exceeded the threshold of %jd. The aggregate currently shows a usage of %jd.

Parameters

aggr (STRING): Name of the aggregate.
usedSpace (LONGINT): Aggregate's used space.
threshold (LONGINT): Configured high-water mark.

mgmt.aba.recommendMove

Severity

INFORMATIONAL

Description

This message occurs when Auto Balance Aggregate identifies a volume that can be moved to alleviate a low-space condition with an aggregate. The move will not be initiated, but will be listed with other recommendations listed by running the "volume move recommend show" command.

Corrective Action

If desired, initiate the recommended move by using the "volume move start" command.

Syslog Message

Auto Balance Aggregate is recommending that volume %s in Vserver %s be moved from aggregate %s to aggregate %s. Upon completion of the move, the source aggregate is projected to be %d percent full and the destination aggregate is projected to be %d percent full.

Parameters

volume (STRING): Volume identified as a candidate to move.
vserver (STRING): Vserver hosting the volume.
srcAggr (STRING): Aggregate the volume should be moved from.
dstAggr (STRING): Aggregate the volume should be moved to.
afterSourceSpace (INT): Projected percentage of used space in the source aggregate if the move is performed.
afterDestSpace (INT): Projected percentage of used space in the destination aggregate if the move is performed.

mgmt.abv events

mgmt.abv.service.filling

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when the percentage of data used on one or more data constituents in a storage service of a managed Infinite Volume exceeds the full watermark. Constituents that have exceeded the full watermark will receive no new content.

Corrective Action

Either increase the size of this Infinite Volume by entering the "volume modify -size" command, or enter the "autobalance volume start" command to equalize the percentage of data used across all data constituents within this storage service.

Syslog Message

(None).

Parameters

vserver (STRING): Vserver that hosts the constituent.
storageService (STRING): Storage service that holds the constituents.
fullCount (INT): Number of constituents that are full.
totalCount (INT): Total number of constituents within this storage service.

mgmt.abv.service.full

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ALERT

Description

This message occurs when the percentage of data used for all of the data constituents within an Infinite Volume's storage service have exceeded the Infinite Volume's full watermark. As a result, users cannot write any more data to this Infinite Volume that would be stored in this storage service by the create-time policy, and the post-ingest policy cannot move files to this storage service while all of its data constituents are in excess of the full watermark.

Corrective Action

This storage service requires more capacity. Either increase the size of one or more of its data constituents, or add one or more new data constituents to it. After adding more capacity, it is strongly recommended that you enter the "autobalance volume start" command to equalize the percentage of data used across all data constituents in this storage service.

Syslog Message

The percentage of data used for all of the data constituents within an Infinite Volume's storage service has exceeded the Infinite Volume's full watermark. Vserver: %s, storage service: %s.

Parameters

vserver (STRING): Vserver that hosts these constituents.
storageService (STRING): Storage service that holds the constituents.

mgmt.abv.volume.filling

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when the percentage of data used on one or more data constituents in this Infinite Volume exceeds the full watermark. Constituents that have exceeded the full watermark will receive no new content.

Corrective Action

Either increase the size of this Infinite Volume by entering the "volume modify -size" command, or enter the "autobalance volume start" command to equalize the percentage of data used across all data constituents.

Syslog Message

(None).

Parameters

vserver (STRING): Vserver that hosts the constituent.
fullCount (INT): Number of full data constituents within this Infinite Volume.
totalCount (INT): Total number of data constituents within this Infinite Volume.

mgmt.abv.volume.full

Deprecated
Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity
ALERT

Description
This message occurs when all of the data constituents within an Infinite Volume have exceeded the Infinite Volume's full watermark. Users cannot write any more data to this Infinite Volume.

Corrective Action
Expand this Infinite Volume by entering the "volume modify -size" command. After expanding the Infinite Volume, it is strongly recommended that you enter the "autobalance volume start" command to equalize the percentage of data used across all data constituents.

Syslog Message
(None).

Parameters
vserver (STRING): Vserver that hosts the constituents.

mgmt.cifsserver events

mgmt.cifsserver.failure

Severity
ERROR

Description
This message occurs when a CIFS server fails to be configured and, therefore, CIFS access might not be available.

Corrective Action
Check the reason for the error and take action accordingly. For further assistance, contact techinal support.

Syslog Message
Failed to configure CIFS server. Error: %s.

Parameters
reason (STRING): Reason for the failure.
vservername (STRING): Name of the vserver.
cifsservername (STRING): Name of the cifs server.

mgmt.cifsserver.success

Severity
INFORMATIONAL

Description

This message occurs when a CIFS server is successfully configured after a failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vservername (STRING): Name of the vserver.
cifsservername (STRING): Name of the cifs server.

mgmt.cifsshare events

mgmt.cifsshare.duplicatesid

Severity

NOTICE

Description

This message occurs when a network client attempts to set a CIFS share's discretionary access control list (DACL) to a list where any security descriptor (SID) appears in more than one access control entry (ACE). The operation is failed and no changes are made to the share's DACL.

Corrective Action

(None).

Syslog Message

Duplicate SID not supported in CIFS share DACL %s

Parameters

vservername (STRING): Name of the Vserver.
cifssharename (STRING): Name of the CIFS share.
sid (STRING): Textual SID.

mgmt.cifsshare.failure

Severity

ERROR

Description

This message occurs when configuration of a CIFS share fails; CIFS access to the share might not be available.

Corrective Action

Check the reason for the error and take action accordingly.

Syslog Message

Failed to configure CIFS share. Error: %s.

Parameters

> **reason** (STRING): Reason for the failure.
> **vservername** (STRING): Name of the vserver.
> **cifsservername** (STRING): Name of the cifs server.
> **cifssharename** (STRING): Name of the cifs share.

mgmt.cifsshare.success

Severity

> INFORMATIONAL

Description

> This message occurs when a CIFS share is successfully configured after a failure.

Corrective Action

> (None).

Syslog Message

> (None).

Parameters

> **vservername** (STRING): Name of the vserver.
> **cifssharename** (STRING): Name of the cifs share.

mgmt.cifssuperuser events

mgmt.cifssuperuser.failure

Severity

> ERROR

Description

> This message occurs when configuration of a CIFS super-user fails; CIFS access through this acccount may not grant full super-user privileges.

Corrective Action

> Check the reason for the error and take action accordingly.

Syslog Message

> Failed to configure CIFS superuser. Error: %s.

Parameters

> **reason** (STRING): Reason for the failure.
> **vservername** (STRING): Name of the vserver.
> **cifsservername** (STRING): Name of the cifs server.
> **cifsdomainname** (STRING): Name of the cifs domain.
> **accountname** (STRING): Name of the superuser account.

mgmt.cifssuperuser.success

Severity

INFORMATIONAL

Description

This message occurs when a CIFS super-user is successfully configured after a failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vservername (STRING): Name of the vserver.
cifsservername (STRING): Name of the cifs server.
cifsdomainname (STRING): Name of the cifs domain.
accountname (STRING): Name of the superuser account.

mgmt.cifssymlink events

mgmt.cifssymlink.failure

Severity

ERROR

Description

This message occurs when configuration of a CIFS symbolic link fails; the symbolic link might not be available through CIFS.

Corrective Action

Check the reason for the error and take action accordingly.

Syslog Message

Failed to configure CIFS symlink. Error: %s.

Parameters

reason (STRING): Reason for the failure.
vservername (STRING): Name of the vserver.
unix_path (STRING): The UNIX path.

mgmt.cifssymlink.success

Severity

INFORMATIONAL

Description

This message occurs when a CIFS symbolic link is successfully configured after a failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vservername (STRING): Name of the vserver.
unix_path (STRING): The UNIX path.

mgmt.cr events

mgmt.cr.constituent.added

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when a constituent volume is added to the Infinite Volume.

Corrective Action

(None).

Syslog Message

Constituent volume "%s" has been added to Infinite Volume "%s" in Vserver "%s". Its size is %ld bytes.

Parameters

constituentName (STRING): Name of the added volume.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.
size (LONGINT): Size of the added volume.

mgmt.cr.constituent.deleted

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when a constituent volume is deleted from the Infinite Volume.

Corrective Action

(None).

Syslog Message

Constituent volume "%s" has been deleted from the Infinite Volume "%s" in Vserver "%s".

Parameters

constituentName (STRING): Name of the deleted volume.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.

mgmt.cr.constituent.failure

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when an Infinite Volume operation that operates on the constituent volumes succeeds, but fails on an individual constituent.

Corrective Action

Fix the cause of the failure listed in the error, and then run the command again.

Syslog Message

Repository job "%s" run on Infinite Volume "%s" in Vserver "%s" failed for constituent volume "%s": %s

Parameters

jobName (STRING): Name of the repository job.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.
constituentName (STRING): Name of the constituent volume.
reason (STRING): Reason for the failure.

mgmt.cr.constituent.resized

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when an Infinite Volume constituent volume is resized.

Corrective Action

(None).

Syslog Message

Constituent volume "%s" of Infinite Volume "%s" in Vserver "%s" has been resized to %ld bytes.

Parameters

constituentName (STRING): Name of the resized volume.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.
size (LONGINT): New size of the volume.

mgmt.cr.job.failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when a repository job fails.

Corrective Action

Fix the cause of the failure, listed in the error, and run the command again.

Syslog Message

Repository job "%s" has failed for Infinite Volume "%s" in Vserver "%s": %s

Parameters

jobName (STRING): Name of the repository job.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.
reason (STRING): Reason for the failure.

mgmt.cr.job.succeeded

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when a repository job is completed successfully.

Corrective Action

(None).

Syslog Message

Repository job "%s" has succeeded for Infinite Volume "%s" in Vserver "%s": %s

Parameters

jobName (STRING): Name of the repository job.
repositoryName (STRING): Name of the Infinite Volume.
vserverName (STRING): Name of the Vserver.
reason (STRING): Success message of the job.

mgmt.cr.missing.footprint

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when Data ONTAP® is attempting to create or expand an Infinite Volume and cannot retrieve volume footprint information about a volume. The footprint information for all volumes on aggregates used by an Infinite Volume, even those in other Vservers, must be known to safely create or expand an Infinite Volume.

Corrective Action

Ensure that the volume is healthy and online, and then retry the operation.

Syslog Message

Unable to get footprint information about volume "%s" in Vserver "%s".;

Parameters

constituentName (STRING): Name of the volume for which footprint information could not be retrieved.
vserverName (STRING): Name of the Vserver the volume belongs to.

mgmt.exovol events

mgmt.exovol.transfer.failed

Severity

ERROR

Description

This message occurs when the replication engine fails to transfer exo-volume data.

Corrective Action

If problem persists, Contact NetApp technical support.

Syslog Message

The replication for volume dsid %jd, transfer-id %s failed to transfer %s exo-volume data, error: %d, failure reason: %s, extended failure reason: %s.

Parameters

volDsid (LONGINT): Data set identifier of the volume.
transferId (STRING): Replication transfer id.
streamType (STRING): Type of data being transferred.
error (INT): Transfer failure error code.
failureReason (STRING): Basic reason for the failure.
extendendFailureReason (STRING): Detailed reason for the failure.

mgmt.exovol.xfer.dest.no.space

Severity

ERROR

Description

This message occurs when there is no free space left on the destination aggregate.

Corrective Action

Please increase the amount of free space available on the destination aggregate.

Syslog Message

The replication for volume dsid %jd, transfer-id %s failed to transfer %s exo-volume data because there is no free space left on the destination aggregate.

Parameters

volDsid (LONGINT): Data set identifier of the volume.
transferId (STRING): Replication transfer id.
streamType (STRING): Type of data being transferred.

mgmt.fpolicy events

mgmt.fpolicy.policy.disabled

Severity

INFORMATIONAL

Description

This message occurs when a Vserver administrator disables an FPolicy® policy. No subsequent client requests will be processed and no notifications will be sent to FPolicy servers attached with this policy.

Corrective Action

(None).

Syslog Message

FPolicy policy %s is disabled on Vserver %s.

Parameters

policyname (STRING): Name of the policy.
vservername (STRING): Name of the Vserver.

mgmt.fpolicy.policy.enabled

Severity

INFORMATIONAL

Description

This message occurs when a Vserver administrator enables an FPolicy® policy. Based on the event configuration, subsequent client requests will be processed, notifications will be generated, and notifications might be sent (based on the policy configuration) to FPolicy servers attached with this policy.

Corrective Action

(None).

Syslog Message

FPolicy policy %s is enabled on Vserver %s.

Parameters

policyname (STRING): Name of the policy.
vservername (STRING): Name of the Vserver.

mgmt.fpolicy.priv.failed

Severity

ERROR

Description

This message occurs when the creation of privileged share ONTAP_ADMIN$ fails. Attempted connections to ONTAP_ADMIN$ share by the FPolicy servers will fail.

Corrective Action

Check the reason for failure and take action accordingly. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Failed to create privileged share ONTAP_ADMIN$ for Vserver "%s". Reason: "%s".

Parameters

vserverName (STRING): Name of the Vserver.
reason (STRING): Reason for failure.

mgmt.fpolicy.replay.failed

Severity

ERROR

Description

This message occurs when an FPolicy® configuration replication mechanism fails after a maximum number of retries. FPolicy Service Manager (FSM) process will restart to resync configuration.

Corrective Action

If the error persists, contact NetApp technical support for assistance.

Syslog Message

FPolicy configuration replication process failed.

Parameters

(None).

mgmt.fsecurity events

mgmt.fsecurity.failure

Severity

ERROR

Description

This message occurs when applying configuration of fsecurity fails.

Corrective Action

Wait for a while and reapply using the "vserver security file-directory apply" command. See the "vserver security file-directory" man pages for information, or if the problem persists, contact NetApp technical support.

Syslog Message

Failed to apply file security policy. Error: %s.

Parameters

reason (STRING): Reason for the failure.
vservername (STRING): Name of the vserver.

mgmt.fsecurity.success

Severity

INFORMATIONAL

Description

This message occurs when a file security policy was applied successfully after a previous failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vservername (STRING): Name of the Vserver.

mgmt.keymgr events

mgmt.keymgr.keyid.noDelete

Severity

ERROR

Description

This message occurs when the system cannot delete the key ID associated with the encrypted aggregate from the key management server.

Corrective Action

Manually delete the key ID associated with the encrypted aggregate from the key management server.

Syslog Message

Encrypted aggregate "%s" with UUID "%s" has been deleted. The key ID "%s" was associated with this aggregate and must be manually deleted from the key management server.

Parameters

name (STRING): Aggregate name.
uuid (STRING): Unique identifier of the aggregate when the aggregate name by itself is insufficient.
key_id (STRING): Unique key ID used by the encrypted aggregate.

mgmt.mcc events

mgmt.mcc.fsecurity.cfig.err

Severity

ERROR

Description

This message occurs when MetroCluster(tm) switchback or switchover happens while applying a file security (fsecurity) policy on the MetroCluster partner. The policy was not applied to the partner.

Corrective Action

Reapply the policy by using the "vserver security file-directory apply" command. See the "vserver security file-directory" man pages for information. If the problem persists, contact NetApp technical support.

Syslog Message

Failed to apply file security policy "%s" on Vserver "%s".

Parameters

policy (STRING): Fsecurity policy name.
vservername (STRING): Name of the Vserver.

mgmt.nfslisteners events

mgmt.nfslisteners.failure

Severity

ERROR

Description

This message occurs when the listener for the NFS service is not configured. If the problem persists, NFS access is not available.

Corrective Action

This problem might be resolved by subsequent automatic retries of the NFS request. If NFS service is not available, check the NFS configuration of the service and the external services it uses. To verify NFS configuration of the service, use the "nfs server show -vserver <vserver name> [-fields <field name>]" command. If the problem persists after you check the NFS configuration, delete the NFS Vserver, and then

re-create it. See the NFS man page guide for information about deleting and re-creating the NFS Vserver, or contact NetApp technical support.

Syslog Message

Failed to configure NFS listener. Error: %s.

Parameters

reason (STRING): Message provided by the NFS service when a listener configuration does not succeed.

mgmt.nfslisteners.success

Severity

INFORMATIONAL

Description

This message occurs when the listener for the NFS service is configured after a failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgmt.nfsserver events

mgmt.nfsserver.failure

Severity

ERROR

Description

This message occurs when a NFS server fails to be configured and, therefore, NFS access might not be available.

Corrective Action

Check the reason for the error and take action accordingly. For further assistance, contact techinal support.

Syslog Message

Failed to configure NFS server. Error: %s.

Parameters

reason (STRING): Reason for the failure.
vservername (STRING): Name of the vserver.

mgmt.nfsserver.success

Severity

INFORMATIONAL

Description

This message occurs when a NFS server is successfully configured after a failure.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vservername (STRING): Name of the nfs server.

mgmt.rst events

mgmt.rst.fail.dst.compressed

Severity

ERROR

Description

This message occurs when the SnapMirror® 'restore' command fails because compression is enabled on the destination volume.

Corrective Action

Force a cleanup of the failed operation by reissuing the 'restore' command with the parameter 'clean-up-failure', disable compression on the destination volume, create a Snapshot(tm) copy, and then reissue the 'restore' command.

Syslog Message

SnapMirror restore from source volume '%s' to destination volume '%s' failed with error: %s.

Parameters

srcpath (STRING): Path name of the source volume for restore.
dstpath (STRING): Path name of the destination volume for restore.
error (STRING): Error message.

mgmt.s3 events

mgmt.s3.sm.license.near.limit

Severity

NOTICE

Description

This message occurs when the total cluster-wide logical used size for S3 Snapmirror external object store relationships is near the license capacity limit but does not exceed the limit.

Corrective Action

To increase the license capacity, install a new license on the cluster. Alternatively, remove some data you are managing.

Syslog Message

%s.

Parameters

message (STRING): Capacity warning message for users

mgmt.s3.sm.license.over.limit

Severity

ERROR

Description

This message occurs when the total cluster-wide bucket used size for S3 Snapmirror external object store relationships is over the license capacity limit.

Corrective Action

To increase the license capacity, install a new license on the cluster. Alternatively, remove some data you are managing.

Syslog Message

%s.

Parameters

message (STRING): Capacity warning message for users

mgmt.sm events

mgmt.sm.cant.clear.autoInit

Severity

NOTICE

Description

This message occurs when a SnapMirror® protect operation fails because the source volume is already protected with a SnapMirror relationship in the specified destination Vserver with the same policy, schedule, relationship type, destination volume prefix, and destination volume suffix and auto-initialize parameter set to true. The auto-initialize parameter cannot be cleared on a SnapMirror relationship once it is set to true.

Corrective Action

(None).

Syslog Message

Job ID %lld failed to disable auto-initialize for SnapMirror relationship on volume %s, destination vserver %s. This operation is not permitted.

Parameters

> **jobID** (LONGINT): Job ID.
> **srcpath** (STRING): Path name of the source volume to be protected.
> **dstvserver** (STRING): Destination Vserver name.

mgmt.sm.cg.force.delete

Severity

> ERROR

Description

> This message occurs when a sync granular consistency group relationship is deleted with the force option. Consistency Group relationship will be the deleted, however the items of the Consistency Group might not be made read-write or deletable after the operation.

Corrective Action

> For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Perform a volume offline and online on the destination volume to trigger the cleanup of any remaining relationship information on the volume.

Syslog Message

> Sync granular consistency group relationship with source path %s. Destination path %s has been force deleted and items of the consistency group on the destination volume might not be read-write or deletable.

Parameters

> **src_path** (STRING): Source path of the sync granular consistency group relationship that was force deleted.
> **dst_path** (STRING): Destination path of the sync granular consistency group relationship that was force deleted.

mgmt.sm.cgRel.limit

Severity

> ALERT

Description

> This message occurs when either Consistency Group relationships or FlexGroups relationships exceeds the cluster-wide limit.

Corrective Action

> To delete the excess relationships. Alternatively, not to create any more additional relationship in the cluster.

Syslog Message

> Number of Consistency Group SnapMirror and/or FlexGroup relationships exceeds supported limit. Number of relationships supported on this cluster "%d". Current Number of relationships "%lu"

Parameters

> **max_count** (INT): Maximum number of relationships supported on cluster.
> **cur_count** (LONGINT): Current count of relationships on cluster.

mgmt.sm.cgVolRel.limit

Severity

ALERT

Description

This message occurs when either Consistency Group item relationships or FlexGroups item relationships exceeds the cluster-wide limit.

Corrective Action

To delete the excess item relationships. Alternatively, not to create any more additional relationship in the cluster.

Syslog Message

Number of Consistency Group item SnapMirror and/or FlexGroup item relationships exceeds supported limit. Number of item relationships supported on this cluster "%d". Current Number of relationships "%lu"

Parameters

max_count (INT): Maximum number of item relationships supported on cluster.
cur_count (LONGINT): Current count of item relationships on cluster.

mgmt.sm.dp.depr.msg

Severity

NOTICE

Description

SnapMirror relationships of type DP are deprecated. From the previous release, users were no longer able to initialize new relationships of type DP. From this release, relationships of type DP will no longer function.

Corrective Action

Use SnapMirror relationships of type XDP instead of type DP.

Syslog Message

SnapMirror relationships of type DP are deprecated in this ONTAP release.

Parameters

(None).

mgmt.sm.ep.cant.clr.autoInit

Severity

NOTICE

Description

This message occurs when a SnapMirror® protect operation fails because the source is already protected with a SnapMirror relationship that has the specified destination endpoint type and the same "-destination-volume-prefix" and "-destination-volume-suffix" parameter values, with the "-auto-initialize" parameter set to "true". The "-auto-initialize" parameter cannot be cleared on a SnapMirror relationship after it is set to "true".

Corrective Action

To change the auto-initialize behavior, delete and release the existing SnapMirror relationship by using the "snapmirror delete" command and the "snapmirror release" command, and then establish another relationship without auto-initialize.

Syslog Message

Job ID %lld: Failed to disable auto-initialize for SnapMirror relationship from source %s to destination endpoint type %s. This operation is not permitted.

Parameters

jobID (LONGINT): Job ID.
srcpath (STRING): Path name of the source to be protected.
dsteptype (STRING): Destination endpoint type.

mgmt.sm.expand.overprovision

Severity

ERROR

Description

This message occurs when a volume expand job starts for the source of a SnapMirror® relationship and the provisioning check finds that there isn't enough free space on the aggregates for destination volume. The source volume expand job is not impacted, but auto-expand will fail for the destination FlexGroup after the source FlexGroup is expanded.

Corrective Action

Increase the size of the aggregates for the destination Flexgroup volume.

Syslog Message

The aggregates on the cluster hosting destination FlexGroup volume '%s' do not have enough free space to be used for expanding the FlexGroup volume. Expansion of the destination will fail until the size of enough aggregates is increased to provide enough space.

Parameters

dstVolume (STRING): Destination volume name of the SnapMirror® relationship.

mgmt.sm.keymgr.not.setup

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation on an encrypted source volume fails because the Key Manager is not set up on the destination node. A SnapMirror relationship with the destination in the specified destination Vserver to protect the source volume will not be created until this condition is corrected.

Corrective Action

Set up the Key Manager by using the "security key-manager setup" command on the destination.

Syslog Message

SnapMirror protect of source volume "%s" failed to destination Vserver "%s" because the Key Manager was not set up on the destination cluster. Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
dstvserver (STRING): Destination Vserver name.
jobID (LONGINT): Job ID.

mgmt.sm.license.near.limit

Severity

NOTICE

Description

This message occurs when the total cluster-wide virtual used size for object store relationships is near the license capacity limit but does not exceed the limit.

Corrective Action

To increase the license capacity, install a new license on the cluster. Alternatively, remove some data you are managing.

Syslog Message

%s.

Parameters

message (STRING): Capacity warning message for users

mgmt.sm.license.not.found

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation of a source volume fails because a required license on the destination cluster is missing. The error message contains the information about the missing license. A SnapMirror relationship with the destination in the specified destination Vserver to protect the source volume will not be created until this condition is corrected.

Corrective Action

Install the license that is missing on the destination cluster. The error message contains information about the missing license.

Syslog Message

SnapMirror protect of source volume "%s" failed to destination Vserver "%s" because there was a license missing on the destination cluster. Error: %s, Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
dstvserver (STRING): Destination Vserver name.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.sm.license.over.limit

Severity

ERROR

Description

This message occurs when the total cluster-wide virtual used size for object store relationships is over the license capacity limit.

Corrective Action

To increase the license capacity, install a new license on the cluster. Alternatively, remove some data you are managing.

Syslog Message

%s.

Parameters

message (STRING): Capacity warning message for users

mgmt.sm.obj.fanout.unsupp

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because the source is already protected with a SnapMirror relationship with an object store destination. Creation of multiple SnapMirror relationships from a source endpoint to object store destinations is unsupported.

Corrective Action

View the existing SnapMirror relationship using the "snapmirror show" command, and correct as necessary.

Syslog Message

Source endpoint "%s" is already protected in an object store. Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
jobID (LONGINT): Job ID.

mgmt.sm.protect.internal.err

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because of an unexpected internal error.

Corrective Action

Retry the command after some time. If the problem persists, contact NetApp technical support.

Syslog Message

SnapMirror protect failed because of an unexpected internal error. Error: %s, Job ID: %llu.

Parameters

error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.sm.rel.exists

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because the source volume is already protected with a SnapMirror relationship in the specified destination storage virtual machine (SVM) with the same policy, schedule, relationship type, destination volume prefix, and destination volume suffix.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Protect the volume again by carrying out the following three steps: 1. Use a different destination volume suffix or destination volume prefix. 2. Use a different schedule or policy. 3. Use the "volume create" command to create a destination volume with a user defined name and then the "snapmirror create" command to create another SnapMirror relationship for the same source volume.

Syslog Message

SnapMirror protect operation of source volume "%s" fails to destination SVM "%s" because the source volume is already protected with a SnapMirror relationship in the specified destination SVM with the same policy, schedule, relationship type, destination volume prefix, and destination volume suffix. Error: %s, Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
dstvserver (STRING): Destination SVM name.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.sm.rename.ndu.error

Severity

ERROR

Description

This message occurs when the renaming of a SnapMirror® volume in another cluster fails, due to the lack of support for this operation in that cluster's effective version of ONTAP® software.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to update Volume name "%s" in remote cluster "%s".

Parameters

volume (STRING): Volume for which the rename operation failed.
clusName (STRING): Remote cluster name.

mgmt.sm.restore.fail

Severity

ERROR

Description

This message occurs when the SnapMirror® 'restore' command fails.

Corrective Action

To retry the restore, reissue the command. Alternatively, force a cleanup of the failed operation without starting another restore by including the parameter 'clean-up-failure' when reissuing the 'restore' command.

Syslog Message

SnapMirror restore from source volume '%s' to destination volume '%s' failed with error: %s.

Parameters

srcpath (STRING): Path name of the source volume for restore.
dstpath (STRING): Path name of the destination volume for restore.
error (STRING): Error message.

mgmt.sm.schd.invalid

Severity

ERROR

Description

This message occurs when the SnapMirror® protect operation fails to find the specified schedule name or the schedule has not been specified. A SnapMirror relationship with the destination will be created and initialized, if auto-initialize is enabled, but subsequent periodic backup operations will not be initiated.

Corrective Action

Add a valid schedule.

Syslog Message

The schedule "%s" is not valid or has not been specified.

Parameters

schd_name (STRING): Name of the schedule that is invalid.

mgmt.sm.schd.unavailable

Severity

ERROR

Description

This message occurs when a schedule is not available on the secondary site for configuration replication of a SnapMirror® relationship of -type Load Sharing (LS) in a MetroCluster(tm) configuration.

Corrective Action

Create a job schedule on the secondary site that is identical to that on the primary site by using the 'job schedule cron create' command.

Syslog Message

Configuration replication of SnapMirror relationship of -type Load Sharing for destination path "%s" has failed because the schedule "%s" is not available.

Parameters

dstpath (STRING): Destination path name of the SnapMirror relationship.
schd_name (STRING): Name of the schedule that is unavailable on the secondary site.

mgmt.sm.snap.create.fail

Severity

ALERT

Description

This message occurs when a SnapMirror® "snapshot create" command fails on the destination volume, after successfully converting a FlexVol® volume to a FlexGroup volume. Future SnapMirror transfers will be unsuccessful.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Create the baseline Snapshot copy on destination volume "%s" using the "volume conversion create-destination-snapshot" command, and then re-create the SnapMirror relationship using the "snapmirror create -destination-path %s -source-path %s -policy %s -throttle %d -schedule %s" command.

Syslog Message

Create the baseline Snapshot copy on destination volume "%s" using the "volume conversion create-destination-snapshot" command, and then re-create the SnapMirror relationship using the "snapmirror create -destination-path %s -source-path %s -policy %s -throttle %s -schedule %s" command.

Parameters

volume (STRING): Volume converted to a FlexGroup volume.
dstPath (STRING): Destination path for SnapMirror create.
srcPath (STRING): Source path for SnapMirror create.
policy (STRING): Policy for SnapMirror create.
throttle (STRING): Throttle for SnapMirror create.
schedule (STRING): Schedule for SnapMirror create.

mgmt.sm.src.policy.creat

Severity

ALERT

Description

This message occurs when a reverse resync operation was performed from System Manager and the SnapMirror policy associated with an intercluster SnapMirror relationship was replicated to the source from the destination, but the retention period in the policy was not replicated. This will happen only if the source cluster ONTAP® version is earlier than ONTAP 9.13.1. Because the retention period was not associated

with the Snapshot copies, the Snapshot copies are prone to deletion, which might lead to data protection issues.

Corrective Action

Add the retention period to the appropriate rules of the SnapMirror policy in the source cluster using the command "snapmirror policy modify-rule -vserver <storage_VM_name> -policy <policy_name> -snapmirror -label <snapmirror_label_name> -retention-period <retention_period>".

Syslog Message

The retention period setting in the destination SnapMirror policy "%s" has not been replicated to the source during a reverse resync, and it might need to be updated manually.

Parameters

policyName (STRING): Name of the policy associated with the SnapMirror relationship that was replicated from the destination to source.

mgmt.sm.src.vol.not.found

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because the source volume was not found.

Corrective Action

Check whether the source path is correct, and then retry the operation with the correct path.

Syslog Message

SnapMirror protect of source volume "%s" failed to destination Vserver "%s" because the source volume was not found. Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
dstvserver (STRING): Destination Vserver name.
jobID (LONGINT): Job ID.

mgmt.sm.sync.break.dp.error

Severity

ERROR

Description

This message occurs when a SnapMirror® break operation fails on a synchronous SnapMirror destination volume, because the destination is either in the "broken-off" state, or another state that is inconsistent with the operation.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror break operation failed for sync SnapMirror relationship with destination volume "%s" because the destination volume is either in the broken-off state or the volume state is inconsistent.

Parameters

dstpath (STRING): Path name of the destination volume.

mgmt.sm.v2.upgrade.chk

Severity

ERROR

Description

This message occurs after booting, when there is a Data Protection relationship created in a Data ONTAP® release prior to 8.2.

Corrective Action

Establish Vserver peering so that the system can convert the pre-8.2 relationships to 8.2 and later relationships. Vserver peering can only be established if both endpoints are running Data ONTAP 8.2 or later on all nodes in the cluster. To check whether the source cluster supports Data ONTAP 8.2 SnapMirror® relationships, run the "capability show -node * -capability volume.snapmirror_v2" command. If the capability is "true" on all nodes, create a Vserver peer relationship between the source and destination endpoint Vservers by by issuing the "vserver peer create" command. If the capability is "false" on any node in the source cluster, upgrade and configure the source cluster by following instructions in the Upgrade and Revert/Downgrade Guide.

Syslog Message

SnapMirror relationships from a pre-8.2 installation are present on this cluster but no Vserver peer relationships were found between the source and destination Vservers.

Parameters

(None).

mgmt.sm.vol.place.create.err

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails to find an aggregate with sufficient free space for a destination volume or fails to create the volume. A SnapMirror relationship with the destination in the specified destination storage virtual machine (SVM) to protect the source volume will not be created until this condition is corrected.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Use the "vserver show -vserver <vserver-name> -fields aggr-list" command to check whether there is a list of aggregates assigned to the destination SVM. If there are aggregates listed, check the status of and the space left in the storage aggregates belonging to that SVM. If there are no aggregates listed, then check the status of and the space left in all of the non-root, non-taken-over and non-SnapLock aggregates. To check whether storage aggregates are non-root, non-taken-over and non-SnapLock, run the "storage aggregate show -fields root, is-home, snaplock-type" command. To check the status of and the

space left in a storage aggregate, run the "storage aggregate show -aggregate <aggr-name>" command for a particular aggregate or the "storage aggregate show" command for all storage aggregates on the cluster. If storage aggregates are offline, use "storage aggregate online -aggregate <aggr-name>" command to bring the storage aggregates online. If there is no space in the storage aggregates: 1) Use the "vserver add-aggregates -vserver <vserver-name> -aggregates <aggr-name>" command to add more storage aggregates to the destination SVM. 2) If needed, use the "storage aggregate create -aggregate <aggr-name> -diskcount <number-of-disks> -node <node-name>" command to create new storage aggregates on available nodes. 3) Use the "storage aggregate add-disks -aggregate <aggr-name> -diskcount <number-of-disks>" command to add space to the storage aggregate. Even if there is free space on storage aggregates, it is possible that the maximum number of volumes already exist on a node. If so, additional volumes cannot be created on that node. If this is the case, add more aggregate space on other nodes. You can determine the number of volumes on a node by using the "volume show -node <node-name>" command. Note the entry count at the end of the show output. To check the overall status of the SnapMirror protect operation, use the "job show <jobID> -instance" or "job history show -id <jobID> -instance" commands. If the problem persists, contact NetApp technical support.

Syslog Message

SnapMirror protect of source volume "%s" failed on destination SVM "%s". Error: %s, Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
dstvserver (STRING): Destination SVM name.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.sm.vol.style.unsupp

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because the source volume style is unsupported. The "SnapMirror" protect command only supports FlexVol® volumes. FlexGroup volumes, FlexGroup constituents, Infinite Volumes, and Infinite Volume constituents are unsupported. Temporary volumes are also not unsupported.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: If you want to protect Infinite Volumes or FlexGroup volumes, use the individual commands: 1. "volume create" for the destination volume 2. "snapmirror create" for the relationship 3. "snapmirror initialize" for the relationship Creating individual SnapMirror relationships on FlexGroup volumes or Infinite Volume constituents is unsupported.

Syslog Message

SnapMirror protect of source volume "%s" fails because the volume is not a FlexVol volume. Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
jobID (LONGINT): Job ID.

mgmt.sm.vsrs.not.peered

Severity

ERROR

Description

This message occurs when a SnapMirror® protect operation fails because either the source or destination Vservers do not exist or the source and destination Vservers are not peered. A SnapMirror relationship with the specified destination Vserver will not be created, and the source volume will not be protected, until this condition is corrected.

Corrective Action

Use the 'vserver show' and 'vserver peer' commands to verify that the source and destination Vservers exist and are named uniquely. Also make sure that the 'snapmirror protect' operation targets the intended Vservers. See the man pages of these commands for further information.

Syslog Message

SnapMirror protect operation of source volume "%s" failed because destination Vserver "%s" and source Vserver %s are not peered. Job ID: %llu.

Parameters

srcpath (STRING): Path name of the source volume to be protected.
srcvserver (STRING): Source Vserver name.
dstvserver (STRING): Destination Vserver name.
jobID (LONGINT): Job ID.

mgmt.smbc events

mgmt.smbc.config.not.repl

Severity

NOTICE

Description

This message occurs when the system fails to replicate the configuration of Report Target Group Port(RTPG) and Inter-Cluster(IC) LIF information.

Corrective Action

(None).

Syslog Message

Failure in configuration replication of RTPG, IC LIF information with relationship UUID "%s".

Parameters

srcpath (STRING): Path name of the source group of the SnapMirror® active sync relationship.
dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.
relationship_id (STRING): Relationship UUID.

mgmt.smbc.proxy.create.fail

Severity

ERROR

Description

This message occurs when there is a failure to create proxy I/O path channel between the SnapMirror®
active sync peer clusters.

Corrective Action

Check the network connection between the source and destination volumes by using the "net interface
show -role intercluster -status-admin up" command.

Syslog Message

Failure in proxy initiator %s and target %s creation.

Parameters

proxy_initiator (STRING): Path name of the proxy initiator.
proxy_target (STRING): Path name of the proxy target.
relationship_id (STRING): Relationship UUID.
error_msg (STRING): Description of the failure.

mgmt.snapmir events

mgmt.snapmir.dst.invalidType

Severity

ERROR

Description

This message occurs when the destination volume of a SnapMirror® relationship is not a Data Protection
(DP) or Load Sharing (LS) type, and a SnapMirror initialize operation is attempted. A volume must be a DP
or LS type to accept a SnapMirror initialize operation.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all
other systems: Use a DP or LS type of volume, or use the "volume create" command to create a new
volume with a DP or LS type to use as a destination of the SnapMirror relationship. You cannot modify the
type of a volume using the "volume modify" command.

Syslog Message

Destination volume "%s" of a SnapMirror relationship is not a DP or LS type. Job ID %llu.

Parameters

dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
jobID (LONGINT): Job ID.

mgmt.snapmir.fl.bkt.del.fail

Severity

ERROR

Description

This message occurs when a bucket could not be deleted during a cleanup of a SnapMirror restore or create operation. Because the operation did not complete successfully, the bucket might be left in an inconsistent state.

Corrective Action

Use the "object-store-server bucket delete" command to delete the bucket.

Syslog Message

Bucket "%s" could not be deleted as part of the clean up of a SnapMirror create or restore operation.

Parameters

bucket (STRING): Name of the bucket in the SnapMirror relationship.

mgmt.snapmir.fl.crt.cleanup

Severity

ERROR

Description

This message occurs when the cleanup of a link failed when it encountered an error during a SnapMirror create operation. Because the link could not be cleaned up properly, the bucket could be in an inconsistent state and might not be able to accept any traffic. Also, if the links are not cleaned up, a new SnapMirror relationship cannot be established with these two buckets.

Corrective Action

1. Run the "snapmirror delete" command to delete the link.

Syslog Message

Cleanup of the link between buckets "%s" and "%s" failed with error "%s".

Parameters

sourceBucket (STRING): Name of the source bucket in the SnapMirror relationship.
destBucket (STRING): Name of the destination bucket in the SnapMirror relationship.
error (STRING): Error that was encountered.

mgmt.snapmir.fl.failover.rmt

Severity

ERROR

Description

This message occurs when the remote bucket was not demoted during a failover operation. This could allow the remote bucket to still accept the traffic even though it is no longer permitted to so. Use the "demote bucket" command to avoid this situation.

Corrective Action

Use the "fabriclink demote-bucket" command in the cluster where remote bucket "%s" is located.

Syslog Message

Failover failed for remote bucket "%s".

Parameters

remoteBucket (STRING): Name of the remote bucket for which the failover operation failed.

mgmt.snapmir.fl.mod.rmt.fail

Severity

NOTICE

Description

This message occurs when the links on a remote cluster could not be modified during the execution of the "snapmirror modify" command. Even though the SnapMirror policy was modified, some of the links on the remote cluster could not be updated with new rpo/ throttle values. There is no detectable impact until a failover is performed. Only when a failover is performed would the reverse link be used, and it would still be functional even if the links on the remote cluster were not updated previously. They would just be using old rpo/throttle values.

Corrective Action

(None).

Syslog Message

Links on remote cluster "%s" were not modified.

Parameters

clusterUuid (STRING): Cluster UUID of the cluster where the links were not updated.

mgmt.snapmir.fl.rstr.bkt.cln

Severity

ERROR

Description

This message occurs when objects in a restore bucket were not deleted during the cleanup of a SnapMirror restore operation. The restore bucket has objects in it even though the restore relationship no longer exists.

Corrective Action

Delete the objects in bucket "%s".

Syslog Message

Objects in bucket "%s" were not deleted during a restore failure cleanup.

Parameters

restoreBucket (STRING): Name of the restore bucket in the SnapMirror relationship.

mgmt.snapmir.fl.rstr.cln.all

Severity

ERROR

Description

This message occurs when the deletion of objects and the cleanup of link failed when the operations encountered an error during a SnapMirror restore operation. Because the link could not be cleaned up

properly, the bucket could be in an inconsistent state and might not be able to accept any traffic. Also, if the links are not cleaned up, a new SnapMirror relationship cannot be established with these two buckets.

Corrective Action

1. Run the "snapmirror delete" command to delete the link. 2. Delete the objects in the restore bucket.

Syslog Message

Cleanup of the link between buckets "%s" and "%s" failed with error "%s" and the objects in the restore bucket could not be deleted.

Parameters

sourceBucket (STRING): Name of the source bucket in the SnapMirror relationship.
destBucket (STRING): Name of the destination bucket in the SnapMirror relationship.
error (STRING): Error that was encountered.

mgmt.snapmir.fl.rstr.lnk.cln

Severity

ERROR

Description

This message occurs when the cleanup of a link failed when it encountered an error during a SnapMirror restore operation. Because the link could not be cleaned up properly, the bucket could be in an inconsistent state and might not be able to accept any traffic. Also, if the links are not cleaned up, a new SnapMirror relationship cannot be established with these two buckets.

Corrective Action

Run the "snapmirror delete" command to delete the link.

Syslog Message

Cleanup of the link between buckets "%s" and "%s" failed with error "%s".

Parameters

sourceBucket (STRING): Name of the source bucket in the SnapMirror relationship.
destBucket (STRING): Name of the destination bucket in the SnapMirror relationship.
error (STRING): Error that was encountered.

mgmt.snapmir.init.fail

Severity

ERROR

Description

This message occurs when a SnapMirror® 'initialize' or 'initialize-ls-set' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Initialize from source volume '%s' to destination volume(s) '%s' failed with error '%s'. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpaths (STRING): Path names of the destination volumes to which the initialize failed.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.snapmir.ls.catchup.fail

Severity

ALERT

Description

This message occurs when a catch-up update for a lagging member in a load-sharing set fails.

Corrective Action

Check the reason for the error and take action accordingly.

Syslog Message

Load-share catch-up update transfer from source volume '%s' to destination volume '%s' failed with error '%s'. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror® relationship.
dstpath (STRING): Path name of the destination volume to which the catch-up update transfer failed.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.snapmir.resync.fail

Severity

ALERT

Description

This message occurs when a SnapMirror® 'resync' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Resync from source volume '%s' to destination volume '%s' failed with error '%s'. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the resync failed.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.snapmir.schd.trans.fail

Severity

ALERT

Description

This message occurs when a scheduled SnapMirror® transfer fails and no automatic retry will be attempted until the next scheduled transfer.

Corrective Action

Check the reason for the error and take action accordingly.

Syslog Message

Scheduled transfer from source volume '%s' to destination volume(s) '%s' failed with error '%s'. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpaths (STRING): Path names of the destination volumes to which the scheduled transfer failed.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.snapmir.schd.trans.overrun

Severity

ERROR

Description

This message occurs when a scheduled SnapMirror® transfer overruns the schedule window.

Corrective Action

Check the reason for the schedule overrun and take action accordingly.

Syslog Message

Scheduled transfer from source volume '%s' to destination volume(s) '%s' is taking longer than the schedule window. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpaths (STRING): Path names of the destination volumes of the scheduled transfer.
jobID (LONGINT): Job ID.

mgmt.snapmir.unexpected.err

Severity

ERROR

Description

This message occurs when a SnapMirror operation encounters an unexpected error. JobID might be zero if the job ID could not be determined at the time the error was generated.

Corrective Action

If the problem persists, contact NetApp technical support.

Syslog Message

SnapMirror unexpected error '%s'. Job ID %llu.

Parameters

error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.snapmir.update.fail

Severity

ALERT

Description

This message occurs when a SnapMirror® 'update' or 'update-ls-set' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Update from source volume '%s' to destination volume(s) '%s' failed with error '%s'. Job ID %llu.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpaths (STRING): Path names of the destination volumes to which the update failed.
error (STRING): Error message.
jobID (LONGINT): Job ID.

mgmt.vdr events

mgmt.vdr.fsecurity.cfig.err

Severity

ERROR

Description

This message occurs when a "snapmirror break" operation is executed while a file security job is running and the previous "snapmirror update" operation only partially transfers the changes made to the file system by the file security job. This results in the policy being applied only partially to the partner; that is, ACLs on the files are applied partially.

Corrective Action

Verify that the file security job has been successfully applied on the Vserver DR partner by using the "job show" command on the source; it should display the "complete" status. Then resync the SnapMirror® relationship by using the "snapmirror resync -source-vserver <source-vserver-name> -destination-vserver <destination-vserver-name>" command. Alternatively, you can break the SnapMirror relationship, and then reapply the job on the destination by using the "vserver security file-directory apply -vserver <vserver-name> -policy-name <policy-name>" command. See the "vserver security file-directory" man pages for more information. If the problem persists, contact NetApp technical support.

Parameters

policy (STRING): Fsecurity policy name.
vservername (STRING): Name of the Vserver.

mgmt.vopl events

mgmt.vopl.cleanup.failed

Severity

ALERT

Description

This message occurs when the system encounters an error trying to clean up after a failed 'volume move' operation.

Corrective Action

Contact NetApp technical support..

Syslog Message

'volume move' cleanup operation with job ID '%jd' failed in step (%s) with the error (%s) for volume '%s' in Vserver '%s'.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
step (STRING): Phase during cleanup where the error occurred.
error (STRING): Error recorded during the cleanup phase.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.del.staleLunMaps

Severity

ERROR

Description

This message occurs when a 'volume delete' operation cannot delete LUN initiator group maps for the LUNs in the volume, resulting in stale LUN initiator group maps. Any attempt to delete these initiator groups that are mapped to nonexistent LUNs (provided that they are not mapped to any other LUNs) fails. 'lun mapped show -igroup <igroup name>' does not list any maps, but 'igroup delete -igroup <igroup name>' fails with an error, suggesting that the initiator group cannot be deleted because it is mapped to LUNs.

Corrective Action

Contact NetApp technical support.

Syslog Message

Could not delete LUN initiator group maps for the volume with MSID '%llu' on Vserver '%s'. Error: %s.

Parameters

voldMsid (LONGINT): Master data set ID of the volume being deleted.
vserver (STRING): Vserver hosting the volume.
error (STRING): Internal software error.

mgmt.vopl.fail.rstart.nosvol

Severity

ALERT

Description

This message occurs when a 'volume move' operation fails in the restart phase because the source volume is not found. The system repeatedly attempts the phase until the restart can be completed. In the time between the first failure and when the restart can be completed, there might be disruption to client traffic for the volume being moved.

Corrective Action

Verify that the job restart is completed by running the "volume move show -vserver <vservername> -volume <volName%gt;" command. If the restart phase continues to fail, contact NetApp technical support.

Syslog Message

'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' failed in the restart phase when attempting to retrieve the source volume.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.fail.status.entry

Severity

ALERT

Description

This message occurs when a 'volume move' operation fails to make an entry in the VLDB table for the 'volume move show' command. The system repeatedly attempts this operation until it exhausts the number of retries. Until an entry is made, the 'volume move show' command might return stale entries use 'job show -id' to show the status of the current volume move operation.

Corrective Action

Use the 'job show -id' command to show the status of the current 'volume move' operation. Retry the 'volume move' operation. If the problem persists, contact NetApp technical support.

Syslog Message

The 'volume move' operation with ID '%jd' for volume name '%s' in Vserver '%s' failed while attempting to make an entry in the VLDB table for the 'volume move show' command. Use 'job show -id' command to show the current status of the job.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.

vserverName (STRING): Name of the source Vserver.

mgmt.vopl.fail.status.modify

Severity
ALERT

Description
This message occurs when a 'volume move' operation fails to modify the VLDB table for the 'volume move show' command. The system repeatedly attempts this phase. Until the modification succeeds, the 'volume move show' command might return stale information about the current 'volume move' operation.

Corrective Action
If the problem persists, contact NetApp technical support.

Syslog Message
The 'volume move' operation for volume '%s' with job ID '%jd' in Vserver '%s' cannot modify an entry in the VLDB table.

Parameters
volName (STRING): Name of the source volume.
jobId (LONGINT): Job ID of the 'volume move' operation.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.made.status.entry

Severity
INFORMATIONAL

Description
This message occurs when a 'volume move' operation makes an entry for the 'volume move show' command because the entry did not exist in the VLDB table.

Corrective Action
(None).

Syslog Message
Use the 'volume move show -vserver %s -volume %s' command to show the status of this 'volume move' operation.

Parameters
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.badDstVol

Severity
ERROR

Description
This message occurs when a 'volume move' operation cannot access the specified destination volume.

Corrective Action

Verify that the destination volume exists and is online.

Syslog Message

The move operation could not access the specified destination volume '%s'.

Parameters

dstVol (STRING): Name of the temporary destination volume for move operation.

mgmt.vopl.move.badSourceVol

Severity

ERROR

Description

This message occurs when a 'volume move' operation cannot access the specified source volume.

Corrective Action

Verify that the source volume exists and is online.

Syslog Message

The move operation could not access the specified source volume '%s' in Vserver '%s' for job ID '%jd'.

Parameters

srcVol (STRING): Name of the volume to be moved.
vserverName (STRING): Name of the Vserver.
jobID (LONGINT): Job ID of the volume move operation.

mgmt.vopl.move.bytesLeft

Severity

INFORMATIONAL

Description

This message occurs when a 'volume move' operation is in data copy phase and we want to know the bytes left.

Corrective Action

(None).

Syslog Message

The 'volume move' operation for volume '%s' in Vserver '%s' and job ID '%jd' is in data copy phase. We want to know the number of bytes left to transfer.

Parameters

volpath (STRING): Name of the source volume of the move job.
vserverName (STRING): Name of the source Vserver.
jobID (LONGINT): Job ID of the 'volume move' operation.

mgmt.vopl.move.cantCrtDstVol

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the destination volume cannot be created.

Corrective Action

Check for space on the destination aggregate. Execute the "volume move" command with the "-perform-validation-only" parameter. If it succeeds, contact NetApp technical support. If it does not succeed, increase space on the destination aggregate, then try the "volume move" command again.

Syslog Message

Volume move job failed because destination volume "%s" could not be created.

Parameters

volpath (STRING): Name of the destination volume of the move.

mgmt.vopl.move.cantCrtSrcSnp

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because creation of a snapshot on the source volume failed.

Corrective Action

Use the "volume show" to check if the volume has enough space for the snapshot. Use the "snapshot show" command to check if the number of snapshots have reached the maximum count. If the issue persists, contact Contact NetApp technical support..

Syslog Message

Volume move job failed because creation of a snapshot on source volume "%s" failed.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.cantDstCncld

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot conclude a transfer on the destination volume.

Corrective Action

Contact NetApp technical support.

'volume move' job could not conclude a transfer on the destination volume '%s'.

Parameters

volpath (STRING): Name of the destination volume of the move job.

mgmt.vopl.move.cantReadCfg

Severity

ERROR

Description

This message occurs when the 'volume move' job cannot read the configuration information.

Corrective Action

Check whether the replicated database is online.

Syslog Message

The job configuration information for 'volume move' operation with job ID '%jd' could not be read.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.

mgmt.vopl.move.cantSaveToRdb

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot save information to the replicated database. The 'volume move' job attempts to retry the operation.

Corrective Action

The "volume move" job is retried automatically. Check the satus of database with "cluster ring show" advanced command. If the problem persists, contact NetApp technical support.

Syslog Message

The volume move job '%jd' for volume '%s' in Vserver '%s' could not save the information to the replicated database.

Parameters

jobId (LONGINT): ID of the 'volume move' job.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.cantSrcCncld

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot conclude a transfer on the source volume.

Corrective Action

Verify that the source volume exists, is readable, and is not currently locked exclusively by another process. If the problem persists, contact NetApp technical support.

Syslog Message

'volume move' job could not conclude the transfer on the source volume '%s'.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.ClnupFldDlVol

Severity

ERROR

Description

This message occurs when a cleanup operation cannot delete the destination volume after a 'volume move' job fails.

Corrective Action

Delete the destination volume by using the 'volume delete' command.

Syslog Message

Could not delete destination volume '%s' following a failed 'volume move'.

Parameters

volpath (STRING): Name of the destination volume that could not be deleted.

mgmt.vopl.move.cntRdDstDAttr

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot read the attributes of the destination volume from disk. The 'volume move' job attempts to retry the operation.

Corrective Action

Use the 'volume move show' command to get the status of the current move operation. If the problem persists, contact NetApp technical support.

Syslog Message

The 'volume move' job could not fetch attributes of destination volume '%s' from the disk.

Parameters

volpath (STRING): Name of the destination volume involved in the move operation.

mgmt.vopl.move.cntRdPostCutoverSrcDAttr

Severity

ERROR

Description

This message occurs when a 'volume move' operation cannot access the specified source volume after cutover to propagate final volume attributes. The attributes were set to values that were either obtained immediately before the cutover occurred, or were set to default values.

Corrective Action

Verify that the attributes on the destination volume are correct. Specifically, check the value for the attribute "filesys-size-fixed".

Syslog Message

The move operation could not read post-cutover attributes from the specified temporary source volume '%s' in Vserver '%s' for job ID '%jd'.

Parameters

dstVol (STRING): Name of the temporary source volume for the move operation.
vserverName (STRING): Name of the Vserver.
jobID (LONGINT): Job ID of the volume move operation.

mgmt.vopl.move.cntRdSrcDAttr

Severity

NOTICE

Description

This message occurs when the volume move operation cannot read the attributes of the source volume from disk. The volume move operation will attempt to retry the operation.

Corrective Action

(None).

Syslog Message

The volume move operation could not fetch the attributes of source volume '%s' from the disk.

Parameters

volpath (STRING): Name of the source volume involved in the move operation.

mgmt.vopl.move.cut.entryFail

Severity

ERROR

Description

This message occurs when the volume move operation cannot enter the cutover phase. The original source volume is functional. After a short delay, the volume move operation will reattempt cutover entry.

Corrective Action

If the problem persists, reduce client traffic on the volume being moved and reduce the general load on the destination node.

Syslog Message

The volume move operation of volume '%s' in Vserver '%s' to destination aggregate '%s' did not enter the cutover phase. The system provided the additional explanation: '%s'. After a short delay, the volume move operation will reattempt cutover entry. The job ID for the volume move job is '%jd'.

Parameters

volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
aggrName (STRING): Name of the destination aggregate.
reasonforFailure (STRING): Reason for the failure.
jobID (LONGINT): Job ID of the volume move operation.

mgmt.vopl.move.cutover.deferred

Severity

ALERT

Description

This message occurs when the volume move job cannot be completed because the cutover phase has been deferred.

Corrective Action

Address the reason for the cutover deferral, and then use the 'volume move trigger-cutover' command to reattempt the cutover phase for this volume move operation.

Syslog Message

Cutover phase has been deferred for the volume move operation with ID '%jd' on volume '%s' on Vserver '%s' to destination aggregate '%s', because of '%s'. Space savings from efficiency could be lost.

Parameters

jobID (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
aggrName (STRING): Name of the destination aggregate.
reasonforDefer (STRING): Reason for deferred cutover.

mgmt.vopl.move.cutover.deferred.wait

Severity

INFORMATIONAL

Description

This message occurs when the volume move job cannot be completed because the cutover phase has been deferred due to the user specifying the cutover action as 'wait'.

Corrective Action

Use the 'volume move trigger-cutover' command to attempt the cutover phase for this volume move operation.

Syslog Message

Cutover phase has been deferred for the volume move operation with ID '%jd' on volume '%s' on Vserver '%s' to destination aggregate '%s', because of '%s'. Space savings from efficiency could be lost.

Parameters

jobID (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
aggrName (STRING): Name of the destination aggregate.
reasonforDefer (STRING): Reason for the deferred cutover.

mgmt.vopl.move.cutover.failed

Severity

ERROR

Description

This message occurs when the volume move job attempts to cut over and is unsuccessful. The system continues to retry the operation until it exhausts the number of cutover attempts allowed.

Corrective Action

Reduce client traffic on the volume, that is scheduled to be moved.

Syslog Message

The volume move operation with ID '%jd' on volume '%s' on Vserver '%s' to destination aggregate '%s' did not cut over because: '%s'. The volume move operation has tried to cut over '%d' out of '%d' times, %d forced.

Parameters

jobID (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
aggrName (STRING): Name of the aggregate.
reasonforFailure (STRING): Reason for cutover failure.
actualcutoverAttempt (INT): Number of actual cutover attempts made.
cutoverAttempt (INT): Number of cutover attempts.
forcedCutoverAttempt (INT): Number of forced cutover attempts.

mgmt.vopl.move.cutoverMod

Severity

INFORMATIONAL

Description

This message occurs when a 'volume move' operation is in cutover and one of the modifiable parameters used by the 'move' job has been modified with the 'volume move modify' command. These modified values will be used for next cutover attempt.

Corrective Action

(None).

Syslog Message

The 'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' is performing a cutover. Values modified with the 'volume move modify' command will not be used until the next cutover attempt.

Parameters

jobId (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.done

Severity

NOTICE

Description

This message occurs when the volume move job succeeds.

Corrective Action

(None).

Syslog Message

The volume move job with ID '%jd' on volume '%s' on Vserver '%s' to destination aggregate '%s' succeeded.

Parameters

jobID (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
aggrName (STRING): Name of the destination aggregate.

mgmt.vopl.move.dstPrepareFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the destination volume cannot be prepared for a transfer.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job failed because the destination volume '%s' could not be prepared for a transfer.

Parameters

volpath (STRING): Name of the destination volume of the move job.

mgmt.vopl.move.findSnpDltFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the call to calculate the delta between a snapshot and the active file system failed.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job failed because the call to calculate the delta between a snapshot and the active file system on the source volume '%s' failed.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.getNxtSnapFld

Severity

ERROR

Description

This message occurs when the 'volume move' job cannot look up the snapshot next in age to the currently referenced snapshot. The 'volume move' job attempts to retry the operation.

Corrective Action

Use the 'volume move show' command to get the status of the current move operation. If the problem persists, contact NetApp technical support.

Syslog Message

The 'volume move' job could not to look up the snapshot next in age to the currently referenced snapshot on the source volume '%s'.

Parameters

volpath (STRING): Name of the source volume involved in the move operation.

mgmt.vopl.move.gtDstSSLstFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because a snapshot list cannot be obtained from the destination volume.

Corrective Action

Check whether the destination volume is online. If the problem persists, contact NetApp technical support.

Syslog Message

Volume move job failed because a snapshot list could not be obtained from the destination volume '%s'.

Parameters

    volpath (STRING): Name of the destination volume of the move job.

mgmt.vopl.move.gtSnpTgSrcFld

Severity

    ERROR

Description

    This message occurs when the volume move job cannot be completed because a snapshot tag cannot be read from the source volume.

Corrective Action

    Check whether the source volume is online. If the problem persists, contact NetApp technical support.

Syslog Message

    Volume move job failed because a snapshot tag could not be read from the source volume '%s'.

Parameters

    volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.gtSrcSSLstFld

Severity

    ERROR

Description

    This message occurs when the volume move job cannot be completed because a snapshot list cannot be obtained from the source volume.

Corrective Action

    Check whether the source volume is online. If the problem persists, contact NetApp technical support.

Syslog Message

    Volume move job failed because a snapshot list could not be obtained from the source volume '%s'.

Parameters

    volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.gtSSTgsDstFld

Severity

    ERROR

Description

    This message occurs when the volume move job cannot be completed because the snapshot tags on the destination volume cannot be read.

Corrective Action

    Retry the volume move job. If the problem persists, this indicates a system level problem. Contact NetApp technical support.

Syslog Message

Volume move job failed because snapshot tags on the destination volume '%s' in vserver '%s' for the volume move of source volume '%s' in vserver '%s' could not be read.

Parameters

dstVol (STRING): Name of the destination volume of the move job.
srcVol (STRING): Name of the source volume of the move job.
dstVserverName (STRING): Name of destination vserver.
srcVserverName (STRING): Name of source vserver.

mgmt.vopl.move.has.clones

Severity

ERROR

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination aggregate but cannot delete the original volume instance on the source aggregate. This is because the original volume instance has volume clones.

Corrective Action

The system usually reaps these types of volume after all clones have been deleted or split automatically. If space occupied by source needs to be freed immediately, then delete the original volume instance using the 'volume delete' command after all the volume clones have been deleted or split.

Syslog Message

The 'volume move' operation with ID '%jd' could not delete the original volume %s in Vserver %s on %s aggregate following a successful volume move because the original volume instance has volume clones.

Parameters

jobId (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume instance that could not be deleted.
vserverName (STRING): Name of the volume's Vserver.
aggrName (STRING): Name of the source aggregate.

mgmt.vopl.move.invldXfrState

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because a transfer is in an invalid state.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job with job ID '%jd' for volume '%s' in Vserver '%s' failed because a transfer was in an invalid state.

Parameters

jobID (LONGINT): ID of the 'volume move' job.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.jobIgnoreQuit

Severity

ERROR

Description

This message occurs when a volume move job fails to stop when you issue a 'volume move abort' or 'job stop' command. If the command is not repeated, the volume move job might continue to run to completion.

Corrective Action

Retry the 'volume move abort' or 'job stop' command before the volume move job is complete.

Syslog Message

Volume move job '%jd' for volume '%s' in Vserver '%s' could not be stopped at this time. Retry the 'volume move abort' or 'job stop' command.

Parameters

jobID (LONGINT): ID of the volume move job.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.jobQuit

Severity

INFORMATIONAL

Description

This message occurs when a 'volume move' job is not completed because a 'volume move abort' or 'job stop' command was issued.

Corrective Action

Verify the status of the move job through the 'volume move show' command.

Syslog Message

'volume move' job with ID '%jd' for volume '%s' in Vserver '%s' was not completed because a 'volume move abort' or 'job stop' command was issued.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.last.upd.fail

Severity

ERROR

Description

This message occurs when a 'volume move' operation fails to update attributes on the destination volume after the cutover has been completed.

Corrective Action

Contact NetApp technical support.

Syslog Message

'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' failed to update the attributes on the destination volume after the cutover has been completed.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.mark.source.reapable.failed

Severity

ERROR

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination aggregate but cannot mark the original volume instance on the source aggregate for deletion. The original volume instance cannot be deleted immediately because it has volume clones.

Corrective Action

Delete the original volume instance using the 'volume delete' command after all the volume clones have been deleted or split.

Syslog Message

The 'volume move' operation with ID '%jd' could not mark the Volume %s containing volume clones in Vserver %s on %s aggregate for later deletion after a successful volume move.

Parameters

jobId (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume instance that could not be marked for later deletion.
vserverName (STRING): Name of the volume's Vserver.
aggrName (STRING): Name of the destination aggregate.

mgmt.vopl.move.memAllocFld

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot allocate memory. The 'volume move' job attempts to retry the operation.

Corrective Action

Use the 'volume move show' command to get the status of the current move operation. If the problem persists, contact NetApp technical support.

Syslog Message

The 'volume move' job ID '%jd' for volume '%s' in Vserver '%s' could not allocate memory.

Parameters

jobId (LONGINT): ID of the 'volume move' job.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.moveModlgr

Severity

INFORMATIONAL

Description

This message occurs when modifiable parameters of the 'move' job have been modified by 'volume move modify' command, but the 'volume move' operation finished with older values and did not use the newly modified values.

Corrective Action

Use 'volume move show' command to verify the parameters used during cutover phase and the final state of the volume move operation.

Syslog Message

The 'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' has completed. Parameters modified during last cutover attempt through 'volume move modify' command have been ignored or 'volume move' operation failed on job restart before refreshing parameters from the VLDB.

Parameters

jobId (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.nosnapspace

Severity

ERROR

Description

This message occurs when a 'volume move' operation fails to create a snapshot on source volume because the number of snapshots in the volume exceeds the maximum limit or there is insufficient disk space in the volume.

Corrective Action

Make sure that the snapshot limit is not reached for the volume. The current Data ONTAP version allows a maximum of 255 snapshots per volume. If required, delete old snapshots of the volumes on the aggregate by running the 'volume snapshot delete' command.

The 'volume move' operation with job ID '%jd' for volume '%s' present on Vserver '%s' cannot proceed (Reason: Cannot create a snapshot on the volume).

Parameters

jobId (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.nospace

Severity

ERROR

Description

This message occurs when there is not enough space on the volume or aggregate for a 'volume move' operation to proceed. It could be on the source or the destination node.

Corrective Action

Reduce the amount of used space on the volume or aggregate, or increase the size of the volume or aggregate. To increase the size of the volume, run the 'volume modify' command. To create space on an aggregate, take one of the following actions: a. To free up more space on a volume, delete old snapshots of the volumes on the aggregate by running the 'volume snapshot delete' command. b. To increase the size of a volume or an aggregate, add disks to the aggregate by running the 'storage aggregate add-disks' command.

Syslog Message

The 'volume move' operation with ID '%jd' for volume '%s' present on Vserver '%s' cannot proceed (Reason: Not enough space in the volume or aggregate).

Parameters

jobId (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.parent.online

Severity

NOTICE

Description

This message occurs when a "volume move" operation fails to take offline the quiesced volume remaining after moving a clone parent, because wafliron is running.

Corrective Action

No action is required, because the system removes the quiesced clone parent automatically. To free some of the resources used by the volume, you can manually take it offline by using the "volume offline" command after the wafliron operation has completed.

Syslog Message

The "volume move" operation for the volume %s on vserver %s with job-id %jd could not offline the quiesced clone parent volume left behind.

Parameters

volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
jobId (LONGINT): Job ID of the "volume move" operation.

mgmt.vopl.move.queryDstFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because a query of the destination for transfer status failed.

Corrective Action

Its a system level problem. Contact Contact NetApp technical support. for further investigation.

Syslog Message

Volume move job failed because a query for transfer status of the destination volume '%s' in vserver '%s' failed.

Parameters

volpath (STRING): Name of the destination volume of the move job.
vserverName (STRING): Name of destination vserver.

mgmt.vopl.move.querySrcFld

Severity

NOTICE

Description

This message occurs when the 'volume move' job cannot be completed because a query of the source for transfer status failed. The 'volume move' job attempts to retry the operation.

Corrective Action

Use the 'volume move show' command to get the status of the move operation. If the problem persists, contact NetApp technical support.

Syslog Message

The 'volume move' job could not query the source '%s' for transfer status.

Parameters

volpath (STRING): Name of the source volume involved in the move operation.

mgmt.vopl.move.refVldbFld

Severity

NOTICE

Description

This message occurs when a 'volume move' operation fails to refresh modifiable parameters used by the 'move' job from the Volume Location Database (VLDB). Volume move operation will use current parameters until a refresh attempt succeeds.

Corrective Action

(None).

Syslog Message

The 'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' could not refresh the modifiable parameters used by the 'move' job from the VLDB. Volume move operation will use current parameters until a refresh attempt succeeds.

Parameters

jobId (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.restart.failed

Severity

ERROR

Description

This message occurs when a volume move job encounters conditions that prevent it from restarting; for example, required snapshots have been deleted. This might result in loss of client access to the volume, stale temporary volumes and stale metadata.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job ID '%jd' could not restart correctly and might have left a stale temporary volume and stale persistent volume move data. Client access to the data stored on the source volume might be blocked. Reason: %s, error %d. Move job was started for volume '%s' in Vserver '%s'.

Parameters

jobID (LONGINT): Job ID of the volume move job.
reason (STRING): Reason for restart failure.
error (INT): Error code for the restart failure.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.snpNtDeletd

Severity

ERROR

Description

This message occurs when a 'volume move' operation cannot delete a reference snapshot created by the move job.

Corrective Action

Use the 'snapshot show' command to verify that the snapshot exists and is not locked by another process. Use the 'snapshot delete' command to delete the snapshot manually.

Syslog Message

snapshot for 'volume move' job ID %jd could not be deleted: name: %s; Vserver ID: %d; volume name: %s.

Parameters

jobId (LONGINT): ID of the volume move job.
snapName (STRING): Name of the snapshot.
vserverId (INT): Destination Vserver ID.
volName (STRING): Name of the parent volume of the snapshot.

mgmt.vopl.move.source.cleanup.failed

Severity

ERROR

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination aggregate but cannot delete the original volume instance on the source aggregate.

Corrective Action

Delete the original volume instance using the 'volume delete' command after offlining the volume.

Syslog Message

The 'volume move' operation with ID '%jd' could not delete the Volume %s in Vserver %s on %s aggregate after a successful volume move.

Parameters

jobId (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the volume instance that could not be deleted
vserverName (STRING): Name of the volume's Vserver.
aggrName (STRING): Name of the destination aggregate.

mgmt.vopl.move.srcVAttrGtFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the Volume Location Database (VLDB) attributes for the source volume cannot be read.

Corrective Action

To check whether the VLDB process is up and running, run the (privilege: advanced) "cluster ring show -unitname vldb" command. Contact NetApp technical support.

Syslog Message

Volume move job failed because the VLDB attributes for source volume "%s" could not be read.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.srcVolInconst

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the source volume is inconsistent.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job failed because the source volume '%s' is inconsistent.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.srcVolOffln

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the source volume is offline.

Corrective Action

Bring the source volume online and retry the move job.

Syslog Message

Volume move job failed because the source volume '%s' is offline.

Parameters

volpath (STRING): Name of the source volume of the move.

mgmt.vopl.move.srcVolRstrctd

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because the source volume is restricted.

Corrective Action

If the source volume is of type DP and a "snapmirror initialize" operation is running on it, wait for the operation to finish, then retry "volume move" operation. If the problem persists, contact NetApp technical

support.

Syslog Message

Volume move job failed because the source volume "%s" is restricted.

Parameters

volpath (STRING): Name of the source volume of the move job.

mgmt.vopl.move.srcVolTemp

Severity

ALERT

Description

This message occurs when a 'volume move' operation cannot start because the source volume is marked as temporary.

Corrective Action

Verify that the source volume exists.

Syslog Message

'volume move' operation with job ID '%jd' for source volume name '%s' and Vserver name '%s' failed because the source volume is marked as temporary.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.move.stSnpTgDstFld

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because a snapshot tag cannot be written to the destination volume.

Corrective Action

Check whether the destination volume is online. If the problem persists, contact NetApp technical support.

Syslog Message

Volume move job failed because a snapshot tag could not be written to the destination volume '%s'.

Parameters

volpath (STRING): Name of the destination volume of the move job.

mgmt.vopl.move.voplIntrnlErr

Severity

ERROR

Description

This message occurs when the volume move job cannot be completed because of an internal error in the Volume Operations Library used by the job management code.

Corrective Action

Contact NetApp technical support.

Syslog Message

Volume move job ID '%jd' for volume '%s' in Vserver '%s' failed because of an internal error in Volume Operations Library used by the job management code.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.move.XferNotFound

Severity

ERROR

Description

This message occurs when the 'volume move' job cannot find the specified transfer.

Corrective Action

Contact NetApp technical support.

Syslog Message

Transfer not found for 'volume move' job with '%jd' for volume '%s' in Vserver '%s'.

Parameters

jobId (LONGINT): ID of the 'volume move' job.
volName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmt.vopl.rehost.failed

Severity

ERROR

Description

This message occurs when a volume rehost job attempts to rehost a volume from one Vserver to another and is unsuccessful. This might happen if the target volume is being accessed by some other Data ONTAP® operations (for example, volume move); if the target volume is in a relationship, such as a SnapMirror DP relationship; or if the aggregate hosting the volume is undergoing a wafliron process. The system makes its best effort to revert the rehost procedure and make the volume available under the source Vserver. Subsequent attempts to rehost this volume might be successful; if the volume rehost revert procedure still fails, use the command "debug vreport" to fix volume discrepancies.

Corrective Action

Follow the instructions provided as part of the volume rehost error and retry the operation after some time. If the volume rehost revert procedure fails and there are volume discrepancies, use command "debug

vreport" in diagnostic mode to fix volume discrepancies.

Syslog Message

The volume rehost operation on volume '%s [%s]' on Vserver '%s' to destination Vserver '%s' by administrator '%s' failed with reason: '%s'. The volume rehost operation can be retried after sometime.

Parameters

volName (STRING): Name of the target volume.
volUuid (STRING): Target volume UUID.
vserverName (STRING): Name of the source Vserver.
destinationVserverName (STRING): Name of the destination Vserver.
adminName (STRING): Name of the administrator attemting the volume rehost operation.
reasonforFailure (STRING): Reason for volume rehost failure.

mgmt.vopl.rehost.succeeded

Severity

INFORMATIONAL

Description

This message occurs when a volume rehost job is successful in rehosting a volume from one Vserver to another.

Corrective Action

(None).

Syslog Message

The volume rehost operation on volume '%s [%s]' on Vserver '%s' to destination Vserver '%s' by administrator '%s' is successful.

Parameters

volName (STRING): Name of the target volume.
volUuid (STRING): Target volume UUID.
vserverName (STRING): Name of the source Vserver.
destinationVserverName (STRING): Name of the destination Vserver.
adminName (STRING): Name of the administrator attemting the volume rehost operation.

mgmt.vopl.rstart.fail.jstate

Severity

NOTICE

Description

This message occurs when a volume move operation encounters an error during the restart phase because it cannot retrieve the state information from the job manager. The system repeatedly attempts the restart process until it can be completed.

Corrective Action

Verify that the restart phase is completed by running the "volume move show -vserver <vservername> -volume <volName%gt;" command. If the restart phase continues to fail, contact NetApp technical support.

volume move operation with job ID '%jd' for volume '%s' in Vserver '%s' encountered an error in the restart phase when attempting to retrieve the job state information.

Parameters

jobID (LONGINT): Job ID of the volume move operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.rstart.retry.fail

Severity

ALERT

Description

This message occurs when an attempt to restart an interrupted 'volume move' operation repeatedly encounters an error and cannot proceed any further. The 'volume move' job will transition to a failed state without cleanup being attempted.

Corrective Action

Check the job status for the ID listed in the event message, and look for errors involving the source and destination nodes and aggregates, and then contact NetApp technical support.

Syslog Message

The attempt to restart the 'volume move' operation with job ID '%jd' for volume '%s' in Vserver '%s' failed.

Parameters

jobID (LONGINT): Job ID of the 'volume move' operation.
volName (STRING): Name of the source volume.
vserverName (STRING): Name of the source Vserver.

mgmt.vopl.vmsi.fail.no.entry

Severity

ALERT

Description

This message occurs when a "volume move" operation cannot update the VLDB table, because the system cannot find any record of the operation within the table. This failure prevents the operation from being displayed in by the "volume move show" command.

Corrective Action

Use the "job show -id" command to display the current status of the "volume move" operation.

Syslog Message

The "volume move" operation for the volume %s with job-id %jd could not modify the entry in the VLDB table for the "volume move show" command. Use the "job show -id" command to track the status of this move operation.

Parameters

volName (STRING): Name of the volume.

jobId (LONGINT): Job ID of the "volume move" operation.

mgmtgwd events

mgmtgwd.certificate events

mgmtgwd.certificate.expired

Severity

ERROR

Description

This message occurs when a digital certificate for a Vserver expires. Client-server communication is not secure.

Corrective Action

Install a new digital certificate on the system using the 'security certificate create' or 'security certificate install' command.

Syslog Message

A digital certificate with Fully Qualified Domain Name (FQDN) %s, Serial Number %s, Certificate Authority '%s' and type %s for Vserver %s has expired.

Parameters

common_name (STRING): Name of the Fully Qualified Domain Name(FQDN) whose digital certificate expired.
serial_number (STRING): Serial Number of the digital certificate.
certificate_authority (STRING): Name of the Certificate Authority.
type (STRING): Type of the digital certificate.
vserver (STRING): Name of the Vserver.

mgmtgwd.certificate.expiring

Severity

ERROR

Description

This message occurs when a digital certificate for a Vserver is about to expire. Client-server communication will not be secure if the certificate expires.

Corrective Action

Install a new digital certificate on the system using the 'security certificate create' or 'security certificate install' command.

Syslog Message

A digital certificate with Fully Qualified Domain Name (FQDN) %s, Serial Number %s, Certificate Authority '%s' and type %s for Vserver %s will expire in the next %d day(s).

Parameters

common_name (STRING): Name of the Fully Qualified Domain Name(FQDN) whose digital certificate is about to expire.
serial_number (STRING): Serial Number of the digital certificate.
certificate_authority (STRING): Name of the Certificate Authority whose digital certificate is about to

expire.

type (STRING): Type of the digital certificate.

vserver (STRING): Name of the Vserver.

days (LONGINT): Number of days remaining until the certificate expires.

mgmtgwd.certificate.switch

Severity

ALERT

Description

This message occurs when the user installed certificates of the service processor API service become invalid and are subsequently replaced with internal certificates.

Corrective Action

Install new digital certificates on the system using the "security certificate create" or "security certificate install" command and enable them using "system service-processor api-service enable-installed-certificates" command.

Syslog Message

User installed certificates of the service processor API service are replaced with internal certificates.

Parameters

(None).

mgmtgwd.configbr events

mgmtgwd.configbr.backupCompleted

Deprecated

This event was replaced by configbr.backupCompleted.

Severity

NOTICE

Description

This message occurs when a scheduled configuration backup is successfully created.

Corrective Action

(None).

Syslog Message

Scheduled configuration backup %s was created successfully.

Parameters

backup (STRING): Backup file.

mgmtgwd.configbr.backupFailed

Deprecated

This event was replaced by configbr.backupFailed.

Severity

ERROR

Description

This message occurs when when the configuration backup cannot be created.

Corrective Action

If the reason is about the root volume file system, ensure that it is available and has enough space to create a backup. If the reason is that a scheduled backup file could not be created, create the backup file manually and upload it to the remote URL.

Syslog Message

The %s configuration backup %s cannot be created. Error: '%s'.

Parameters

type (STRING): Type of backup, either cluster or local.
backup (STRING): Backup file.
reason (STRING): Reason for the error.

mgmtgwd.configbr.deleteFailed

Deprecated

This event was replaced by configbr.deleteFailed.

Severity

ERROR

Description

This message occurs when an old configuration backup cannot be deleted.

Corrective Action

Ensure that the node is accessible and healthy. If necessary, delete the backup manually.

Syslog Message

The %s configuration backup %s on node %s cannot be deleted. Error: '%s'.

Parameters

type (STRING): Type of backup, either cluster or local.
backup (STRING): Backup file.
node (STRING): Node on which the backup file exists.
reason (STRING): Reason for the error.

mgmtgwd.configbr.distributeFailed

Deprecated

This event was replaced by configbr.distributeFailed.

Severity

ERROR

Description

This message occurs when a configuration backup cannot be distributed to another node in the cluster.

Corrective Action

Ensure that the destination node is accessible and healthy. If necessary, upload the backup file to the remote URL to increase the availability of the backup file.

Syslog Message

Configuration backup %s cannot be distributed to node %s. Error: '%s'.

Parameters

backup (STRING): Backup file.
destination_node (STRING): Destination node to which the backup file failed to be distributed.
reason (STRING): Reason for the error.

mgmtgwd.configbr.initFailed

Deprecated

This event was replaced by configbr.initFailed.

Severity

ERROR

Description

This message occurs when when the configuration backup and restore feature cannot initialize the necessary software components.

Corrective Action

If the reason is about the backup directory under the root volume, ensure that the root volume is available and has enough free space. If the reason is about populating replicated database entries, wait five minutes and then use the advanced mode of the command-line interface to access the "Backup Settings" menu to ensure that backup schedules are listed. If the reason is about creating backup jobs, wait five minutes and then run the 'job show' command to ensure that backup jobs are displayed for each schedule.

Syslog Message

Configuration backup and restore feature could not be initialized. Error: '%s'.

Parameters

reason (STRING): Reason for the initialization failure.

mgmtgwd.configbr.intError

Deprecated

This event was replaced by configbr.intError.

Severity

ERROR

Description

This message occurs when an attempt to create a configuration backup file encountered an internal software error.

Corrective Action

Create the configuration backup file manually by using the "system configuration backup create" command.

Syslog Message

Configuration backup and restore detected an internal software error. Error: '%s'.

Parameters

error (STRING): Internal software error.

mgmtgwd.configbr.noDestURL

Deprecated

This event was replaced by configbr.noDestURL.

Severity

ERROR

Description

This message occurs when the cluster backup is saved on only one node and no offsite configuration backup destination URL is configured.

Corrective Action

Configure an offsite configuration backup destination URL as soon as possible, using the commands "system configuration backup settings modify -destination <destination-url> -username <username-on-destination-url>" and "system configuration backup settings set-password".

Syslog Message

Cluster backup is saved on only one node and no offsite configuration backup destination URL is configured.

Parameters

(None).

mgmtgwd.configbr.snapshotDeleteFailed

Deprecated

This event was replaced by configbr.snapshotDelFailed.

Severity

ERROR

Description

This message occurs when a Snapshot(tm) copy on the root volume cannot be deleted. The Snapshot copy was created during a configuration backup.

Corrective Action

Ensure that the root volume file system is available.

Syslog Message

Snapshot copy %s on the root volume cannot be deleted on node %s. Error: '%s'.

Parameters

name (STRING): Name of the Snapshot copy.
node (STRING): Node on which the Snapshot copy was created.
reason (STRING): Reason for the error.

mgmtgwd.configbr.unpubFailed

Deprecated

This event was replaced by configbr.unpubFailed.

Severity

ERROR

Description

This message occurs when the configuration backup and restore feature fails to unpublish a package by using the file replication service. The configuration backup process creates file packages and registers them with the file replication service, which stores the package in the root file system. When the configuration backup process is complete, it cleans up these files by unpublishing the package by using the file replication service. When unpublishing fails, these files are not be cleaned up and remain in the root file system. This message does not indicate a failure in the configuration backup process, which continues despite the event. You can monitor the status of an ongoing configuration backup process by using the "job show" command. The completed configuration backup files are visible when you run the "system configuration backup show" command.

Corrective Action

Obtain diagnostic privilege and view the file replication packages by using the "system services replication show" command. Unpublish the file replication packages by issuing the "system services replication unpublish" command, for which you also need diagnostic privilege. Check the "cluster ring show" command to ensure that the node is in quorum; management quorum is required for the unpublish command to succeed. Do not take these actions while an active configuration backup process is running.

Syslog Message

Configuration backup and restore failed to unpublish package %s; Error: '%s'.

Parameters

package_name (STRING): Name of the package.
reason (STRING): Reason for the unpublishing failure.

mgmtgwd.configbr.uploadFailed

Deprecated

This event was replaced by configbr.uploadFailed.

Severity

ERROR

Description

This message occurs when the configuration backup cannot be uploaded to the destination URL.

Corrective Action

Ensure that the destination URL is reachable, the protocol in the URL is supported, and the user credentials are valid.

Syslog Message

Configuration backup file %s cannot be uploaded to the destination URL %s. Error: '%s'.

Parameters

backup (STRING): Backup file.
destination (STRING): Destination URL.
reason (STRING): Reason for the upload failure.

mgmtgwd.fg events

mgmtgwd.fg.32bit.nfs3ids

Severity

ERROR

Description

This message occurs when the user creates a FlexGroup on a Vserver that has NFSv3 enabled, but uses 32-bit identifiers, which could cause file ID collisions.

Corrective Action

To prevent file ID collisions within the FlexGroup, enable NFSv3 64-bit FSIDs and file IDs on the Vserver. For more information or assistance, contact NetApp technical support.

Syslog Message

FlexGroup %s was created on Vserver %s which uses 32-bit NFSv3 FSIDs and File IDs. File ID collisions may occur.

Parameters

volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmtgwd.fg.32bit.nfs4ids

Severity

ERROR

Description

This message occurs when the user creates a FlexGroup on a Vserver that has NFSv4.x enabled, but uses 32-bit identifiers, which could cause file ID collisions.

Corrective Action

To prevent file ID collisions within the FlexGroup, enable NFSv4.x 64-bit FSIDs and file IDs on the Vserver. For more information or assistance, contact NetApp technical support.

Syslog Message

FlexGroup %s was created on Vserver %s which uses 32-bit NFSv4.x FSIDs and File IDs. File ID collisions may occur.

Parameters

    volumeName (STRING): Name of the volume.
    vserverName (STRING): Name of the Vserver.

mgmtgwd.fg.modify.constituent.fail

Severity

    ERROR

Description

    This message occurs when modification of a FlexGroup constituent's state fails during the operation to modify the state of the FlexGroup. The FlexGroup will be in the 'mixed' state and constituents that are still online will be able to serve data. Constituents that are offline will not be able to serve data. All management operations will be unavailable on the FlexGroup until it is brought completely online.

Corrective Action

    Correct the problem based on the reason specified. If the error persists, contact NetApp technical support.

Syslog Message

    Failed to modify the state of FlexGroup constituent %s in Vserver %s. Reason: %s.

Parameters

    volumeName (STRING): Name of the constituent.
    vserverName (STRING): Name of the Vserver.
    reason (STRING): Reason for the failure.

mgmtgwd.fg.modify.rlbk.fail

Severity

    ERROR

Description

    This message occurs after a series of failures. First, the FlexGroup resize fails. To recover, we try to rollback the FlexGroup constituents to their original sizes. If we fail to rollback any of these constituents, this message will occur.

Corrective Action

    Correct the problem based on the reason specified. If the error persists, contact NetApp technical support.

Syslog Message

    Failed to rollback the size of FlexGroup constituent %s in Vserver %s Reason: %s.

Parameters

    volumeName (STRING): Name of the constituent.
    vserverName (STRING): Name of the Vserver.
    reason (STRING): Reason for the failure.

mgmtgwd.fg.sis.op.constituent.fail

Severity

ERROR

Description

This message occurs when the execution of the efficiency operation on a FlexGroup constituent fails.

Corrective Action

Correct the problem based on the reason specified. If the error persists, contact Netapp technical support for further assistance.

Syslog Message

Failed to execute the efficiency operation on FlexGroup constituent %s in Vserver %s. Operation: %s. Reason: %s.

Parameters

volumeName (STRING): Name of the constituent.
vserverName (STRING): Name of the Vserver.
operationType (STRING): Type of the efficiency operation.
reason (STRING): Reason for the failure.

mgmtgwd.filereplication events

mgmtgwd.filereplication.failverify

Severity

ERROR

Description

This message occurs when the startup scan of the file replication publishing root directory fails to verify packages. This might be due to file corruption or a mixed-version issue.

Corrective Action

Contact NetApp technical support.

Syslog Message

The startup scan of the file replication publishing directory failed to verify one or more packages.

Parameters

(None).

mgmtgwd.filereplication.forbidden

Severity

ERROR

Description

This message occurs when the file replication service receives a request on an unsecure network interface.

Corrective Action

Use the "network interface show" command to verify that the source IP address of the request is from an internal, authorized source. This could be a security breach attempt. File replication never attempts to

communicate over nonclustered interfaces.

Syslog Message

The file replication service denied an incoming request that came from '%s' through the virtual interface address '%s'.

Parameters

client_ip (STRING): IP address of the client.
server_ip (STRING): IP address of the server interface.

mgmtgwd.filereplication.nopubroot

Severity

ERROR

Description

This message occurs when the file replication service cannot find or initialize the publishing root directory.

Corrective Action

Contact NetApp technical support.

Syslog Message

The publishing root directory at '%s' could not be initialized. Error: '%s'.

Parameters

dir (STRING): Location of the publishing root directory.
reason (STRING): Reason the directory cannot be used.

mgmtgwd.filereplication.noserver

Severity

ERROR

Description

This message occurs when the file replication module cannot initialize the local server process.

Corrective Action

Ensure that the local replication network port is not in use ("network port show" and "network port broadcast-domain show") and that system resources are not limited.

Syslog Message

The file replication service could not initialize its server process. Error: '%s'.

Parameters

description (STRING): Reason for the failure.

mgmtgwd.filereplication.nostart

Severity

ERROR

Description

This message occurs when the file replication service cannot be started.

Corrective Action

Contact NetApp technical support.

Syslog Message

The file replication service could not be started.

Parameters

(None).

mgmtgwd.fips events

mgmtgwd.fips.post.failure

Severity

ERROR

Description

This message occurs when an unrecoverable error prevents initialization of the cryptographic subsystem into FIPS mode. No SSL communication will be possible with the storage system in this state. Other ONTAP features may also be affected by the lack of cryptographic operations.

Corrective Action

To operate in non FIPS cryptographic mode, turn off FIPS mode for the SSL interface using command "security config modify -interface SSL -is-fips-enabled false" and restart the system. For more information or assistance, contact NetApp technical support.

Syslog Message

SSL interface disabled due to failure of FIPS mode cryptographic services.

Parameters

(None).

mgmtgwd.jobmgr events

mgmtgwd.jobmgr.fetcherr

Severity

ERROR

Description

This message occurs when the system cannot locate the configuration for a specific Vserver.

Corrective Action

Disable and reenable the auditing function of the affected Vserver using the 'vserver audit disable' and 'vserver audit enable' commands to attempt to retrieve the missing configuration information. If the audit enable command fails, contact the system administrator for assistance.

Syslog Message

Job '%s' [jobid %d, name "%s", UUID %s] failed on Vserver '%s'.

Parameters

name (STRING): Name of the job.
jobid (INT): ID of the job.
description (STRING): Description of the job.
jobuuid (STRING): UUID of the job.
vservername (STRING): Vserver name linked with the job.

mgmtgwd.jobmgr.high.jobs

Severity

ERROR

Description

This message occurs when the total number of queued jobs, including both the cluster-wide jobs and the node-local jobs, exceeds a configured threshold.

Corrective Action

Allow the backlog of jobs to run to completion before adding more jobs. Halt external tools from issuing frequent commands that result in jobs. You can view the job queue thresholds with the diag privilege command "job queue config show". The command "job show" displays cluster-wide jobs. The command "job private show" displays node-local jobs. The command "job history show" displays job history. The command "job queue show" displays the job queues.

Syslog Message

High number of jobs: there are %d jobs queued on this node. New jobs will not be accepted by this node when the total number of jobs exceeds %d.

Parameters

jobs (LONGINT): Number of jobs queued.
max (LONGINT): Maximum number of jobs accepted.

mgmtgwd.jobmgr.high.jobtype

Severity

ERROR

Description

This message occurs when the total number of queued jobs of any type, including both the cluster-wide jobs and the node-local jobs, exceeds a configured threshold.

Corrective Action

Allow the backlog of jobs to run to completion before adding more jobs. Halt external tools from issuing frequent commands that result in jobs. You can view the job queue thresholds with the diag privilege command "job queue config show". The command "job show" displays cluster-wide jobs. The command "job private show" displays node-local jobs. The command "job history show" displays job history. The command "job queue show" displays the job queues.

Syslog Message

High number of "%s" jobs: there are %d of this job type queued on this node. New jobs will not be accepted by this node when the total number of jobs of this type exceeds %d.

Parameters

type (STRING): Job type.
jobs (LONGINT): Number of jobs queued of this type.
max (LONGINT): Maximum number of jobs accepted of this type.

mgmtgwd.jobmgr.init.err

Severity

ERROR

Description

This message occurs when the Job manager cannot load a private job.

Corrective Action

Look into the private job history by using the job_id. If necessary, restart the activity by using the applicable command. Example Command: job private show-completed -node node-01 -id 10

Syslog Message

"Unable to load private job. Job UUID = %s and ID= %ul. Reason: %s"

Parameters

job_uuid (STRING): UUID of the private job.
job_id (LONGINT): Human-readable ID of the private job.
failure_reason (STRING): Reason for failure to load.

mgmtgwd.jobmgr.jobcomplete.failure

Severity

INFORMATIONAL

Description

This message occurs when the Job Manager completes a job unsuccessfully.

Corrective Action

(None).

Syslog Message

Job "%s" [id %d] (%s) completed unsuccessfully: %s (%llu).

Parameters

name (STRING): Name of the job.
jobid (INT): ID of the job.
description (STRING): Description of the job.
completion (STRING): Completion string for the job.
code (LONGINT): Completion code for the job.
jobuuid (STRING): UUID of the job.

mgmtgwd.jobmgr.jobrestart

Severity

INFORMATIONAL

Description

This message occurs when the Job Manager restarts a job.

Corrective Action

(None).

Syslog Message

Restarted job "%s" [id %d]: %s.

Parameters

name (STRING): Name of the job.
jobid (INT): ID of the job.
description (STRING): Description of the job.
jobuuid (STRING): UUID of the job.

mgmtgwd.jobmgr.private.jobcomplete.failure

Severity

INFORMATIONAL

Description

This message occurs when the Job Manager completes a private job unsuccessfully.

Corrective Action

(None).

Syslog Message

Private job "%s" [id %d] (%s) completed unsuccessfully: %s (%llu).

Parameters

name (STRING): Name of the job.
jobid (INT): ID of the job.
description (STRING): Description of the job.
completion (STRING): Completion string for the job.
code (LONGINT): Completion code for the job.
jobuuid (STRING): UUID of the job.

mgmtgwd.jobmgr.sched.peer.update

Severity

ERROR

Description

This message occurs when a job schedule is updated on the peer cluster and might need to be updated on this cluster.

Corrective Action

Update the schedule on this cluster to match the peer cluster.

Syslog Message

"Schedule "%s" was %s on peer cluster and must also be updated on this cluster. Command on peer cluster: %s."

Parameters

schedule (STRING): Schedule name.
operation (STRING): Operation performed on schedule: "created," "modified," or "deleted."
command (STRING): Job schedule command that was executed on the peer cluster.

mgmtgwd.jobmgr.sched.type

Severity

ERROR

Description

This message occurs when a job schedule is created with the same name as a schedule from the MetroCluster(tm) partner cluster, but with a different schedule type.

Corrective Action

Create a replacement schedule with a different name, and then delete one of the same-named schedules.

Syslog Message

Schedule "%s" was created with the same name as an existing schedule, but with a different schedule type.

Parameters

schedule (STRING): Schedule name.

mgmtgwd.jobmgr.sched.update

Deprecated

Deprecated as of version 9.6. Job schedules are automatically replicated to the peer cluster.

Severity

ERROR

Description

This message occurs when a job schedule is updated on this cluster and might need to be updated on the peer cluster.

Corrective Action

On the peer cluster, update the schedule to match this cluster.

Syslog Message

"Schedule "%s" was %s and must also be updated on the peer cluster. Command: %s."

Parameters

schedule (STRING): Schedule name.
operation (STRING): Operation performed on schedule: "created," "modified," or "deleted."

command (STRING): Job schedule command that was executed.

mgmtgwd.mixed events

mgmtgwd.mixed.version

Severity

ALERT

Description

This message occurs when not all nodes are running the same version of ONTAP. Not all features of a software version are available to the cluster unless all nodes are at the same version. This message can occur when upgrade or revert is in progress or has not completed successfully.

Corrective Action

Use "version" to check the current cluster version and use "version -node *" to check the version on individual nodes.

Syslog Message

Not all nodes are at the same ONTAP version. Cluster is operating in version %s. One or more nodes are at %s.

Parameters

ClusterVersion (STRING): Current cluster version.
HighestVersion (STRING): Highest version in the cluster.

mgmtgwd.replace events

mgmtgwd.replace.node.mgmt.lif

Severity

ERROR

Description

This message occurs when the temporary node management LIF, which is normally deleted automatically, has not been replaced. It should be replaced to free the DHCP address.

Corrective Action

Create a new node management LIF by using the 'network interface create' command, and then delete the temporary node management LIF by using the 'network interface delete' command.

Syslog Message

Temporary node management LIF '%s' should be replaced with a new node management LIF.

Parameters

lif (STRING): Temporary node management LIF.

mgmtgwd.repos events

mgmtgwd.repos.conflictingOps

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when an Infinite Volume operation cannot be started because another Infinite Volume operation is already in progress.

Corrective Action

Check whether another Infinite Volume operation is currently in progress by running the 'job show' command. After the current operation is complete, try the new operation again. If the error persists, contact NetApp technical support.

Syslog Message

Infinite Volume operation '%s' could not be started on volume '%s' on Vserver '%s', because operation '%s' is already in progress.

Parameters

attemptedOperation (STRING): Name of the Infinite Volume operation that could not be started.
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
existingOperation (STRING): Name of the Infinite Volume operation already running.

mgmtgwd.revertto events

mgmtgwd.revertTo.forceErrors

Deprecated

This event was replaced by revertTo.force.

Severity

NOTICE

Description

This message occurs when a revert to process is being initiated with the "force" flag, and configuration errors have been detected.

Corrective Action

(None).

Syslog Message

Forcing revert in spite of detected configuration errors.

Parameters

(None).

mgmtgwd.rootvol events

mgmtgwd.rootvol.recovery.changed

Severity

EMERGENCY

Description

This message occurs when the system detects that a root volume might have changed, causing the local management databases to be out of sync with the replicated databases. The node is not fully operational. Data lifs might have failed over within the cluster, so NFS and CIFS access is limited on this node. There also might have been a loss of stored data. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Contact technical support to obtain the root volume recovery procedures.

Syslog Message

The contents of the root volume might have changed and the local management databases might be out of sync with the replicated databases. This node is not fully operational. Contact technical support to obtain the root volume recovery procedures.

Parameters

(None).

mgmtgwd.rootvol.recovery.different

Severity

EMERGENCY

Description

This message occurs when the system detects a different root volume than it has used previously. The node is not fully operational. Data lifs might have failed over within the cluster, so NFS and CIFS access is limited on this node. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Contact technical support to obtain the root volume recovery procedures.

Syslog Message

The root volume is different than the one previously used by this node. This node is not fully operational. Contact technical support to obtain the root volume recovery procedures.

Parameters

(None).

mgmtgwd.rootvol.recovery.new

Severity

EMERGENCY

Description

This message occurs when the system detects a new root volume. The node is not fully operational. Data lifs might have failed over within the cluster, so NFS and CIFS access is limited on this node. There also might be a loss of stored data. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Contact technical support to obtain the root volume recovery procedures.

Syslog Message

A new root volume was detected. This node is not fully operational. Contact technical support to obtain the root volume recovery procedures.

Parameters

(None).

mgmtgwd.rootvol.recovery.takeover.changed

Severity

EMERGENCY

Description

This message occurs when the system detects that a root volume might have changed, causing the local management databases to be out of sync with the replicated databases. This occurred due to corruption of the Non-Volatile RAM log (NVLOG) during takeover. The node is not fully operational. Data logical interfaces (LIFs) might have failed over within the cluster, so NFS and CIFS access is limited on this node. There also might have been a loss of stored data. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Contact technical support to obtain the root volume recovery procedures.

Syslog Message

The contents of the root volume might have changed and the local management databases might be out of sync with the replicated databases due to corruption of NVLOG data during takeover. This node is not fully operational. Contact technical support to obtain the root volume recovery procedures.

Parameters

(None).

mgmtgwd.rootvolrec events

mgmtgwd.rootvolrec.low.space

Severity

EMERGENCY

Description

This message occurs when the system detects that the root volume is dangerously low on space. The node is not fully operational. Data logical interfaces (LIFs) might have failed over within the cluster, so NFS and CIFS access is limited on this node. Administrative capability is limited to local recovery procedures for this node to make space available on the root volume.

Corrective Action

Contact NetApp technical support for assistance to make space available on the root volume by deleting old Snapshot® copies, deleting unnecessary files, or expanding the root volume capacity. After space is available, controller needs to be rebooted.

Syslog Message

The root volume on node "%s" is dangerously low on space. Less than %d MB of free space remaining.

Parameters

node (STRING): Node on which the root volume is low on space.
threshold_in_mb (INT): Threshold, in MB, that is being used to compare against the root volume's available space.

mgmtgwd.schedsnap events

mgmtgwd.schedSnap.createFail

Severity

ERROR

Description

This message occurs when the system fails to create a Snapshot(tm) copy for the given volume.

Corrective Action

Correct the problem based on the reason specified. If the error persists, contact NetApp technical support.

Syslog Message

Skipping creation of scheduled Snapshot copy '%s' on volume '%s' on vserver '%s' for schedule '%s' prefix '%s' (reason: %s)

Parameters

snapshotName (STRING): Name of the Snapshot copy.
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the virtual server.
scheduleName (STRING): Name of the Snapshot policy schedule.
prefixName (STRING): Name of the prefix associated with the Snapshot policy schedule.
reason (STRING): Reason for the failure.

mgmtgwd.schedSnap.createSkip

Severity

ERROR

Description

This message occurs when a scheduled Snapshot(tm) copy for a volume is skipped because there is a conflicting operation being performed on the volume.

Corrective Action

Correct the problem based on the reason specified. If the error persists, contact NetApp technical support.

Syslog Message

Skipping creation of scheduled Snapshot copy for volume "%s" on Vserver "%s" using policy "%s". Reason: %s.

Parameters

volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
snapshotPolicy (STRING): Name of the Snapshot policy.
reason (STRING): Reason that the scheduled Snapshot copy was skipped.
appUuid (STRING): UUID of the Application.

mgmtgwd.sign events

mgmtgwd.sign.cert.expired

Severity

ERROR

Description

This message occurs when a digital certificate for a Vserver expires. Client-server communication is not secure.

Corrective Action

Sign a new digital certificate on the system using the 'security certificate sign' command.

Syslog Message

A digital certificate with Fully Qualified Domain Name (FQDN) %s, Serial Number %s, Certificate Authority '%s' and Certificate Authority Serial Number %s for Vserver %s has expired.

Parameters

common_name (STRING): Name of the Fully Qualified Domain Name(FQDN) whose digital certificate expired.
serial_number (STRING): Serial Number of the digital certificate.
certificate_authority (STRING): Name of the Certificate Authority.
ca_serial_number (STRING): Serial Number of the Certificate Authority(CA) that signed the digital certificate.
vserver (STRING): Name of the Vserver.

mgmtgwd.sign.cert.expiring

Severity

ERROR

Description

This message occurs when a digital certificate for a Vserver is about to expire. Client-server communication will not be secure if the certificate expires.

Corrective Action

Sign a new digital certificate on the system using the 'security certificate sign' command.

Syslog Message

A digital certificate with Fully Qualified Domain Name (FQDN) %s, Serial Number %s, Certificate Authority '%s' and Certificate Authority Serial Number %s for Vserver %s will expire in %d day(s).

Parameters

common_name (STRING): Name of the Fully Qualified Domain Name(FQDN) whose digital certificate is about to expire.
serial_number (STRING): Serial Number of the digital certificate.
certificate_authority (STRING): Name of the Certificate Authority whose digital certificate that is about to expire.
ca_serial_number (STRING): Serial Number of Certificate Authority(CA) that signed the digital certificate.
vserver (STRING): Name of the Vserver.
days (INT): Number of days remaining until the certificate expires.

mgmtgwd.snapshot events

mgmtgwd.snapshot.deleteWarn

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when a snapshot cannot be deleted from an Infinite Volume.

Corrective Action

Delete one or more older snapshots associated with this schedule by using the "volume snapshot delete" command.

Syslog Message

Skipping deletion of scheduled snapshot "%s" on volume "%s" on Vserver "%s" for schedule "%s" prefix "%s" (reason: %s).

Parameters

snapshotName (STRING): Name of the snapshot.
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
scheduleName (STRING): Name of the snapshot policy schedule.
prefixName (STRING): Name of the prefix associated with the snapshot policy schedule.
reason (STRING): Reason for the failure.

mgmtgwd.snapshot.frcRestore

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when a snapshot is restored on an Infinite Volume using the 'force' option.

Corrective Action

(None).

Syslog Message

Volume '%s' on Vserver '%s' was restored to snapshot '%s' using the 'force' option.

Parameters

volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
snapshotName (STRING): Name of the snapshot.

mgmtgwd.snapshot.partCreate

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when a snapshot copy is partially created on an Infinite Volume. Residual snapshots might remain on one or more Infinite Volume constituent volumes. These snapshots might consume the snapshot reserve on the constituent volumes.

Corrective Action

Contact NetApp technical support.

Syslog Message

Scheduled snapshot '%s' of volume '%s' on Vserver '%s' for schedule '%s' prefix '%s' was partially created and cleanup failed on one or more constituent volumes.

Parameters

snapshotName (STRING): Name of the snapshot.
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.
scheduleName (STRING): Name of the snapshot policy schedule.
prefixName (STRING): Name of the prefix associated with the snapshot policy schedule.
constituentMsidList (STRING): List of master data set IDs (MSIDs) of Infinite Volume constituent volumes that might have residual snapshots.

mgmtgwd.snapshot.tooManySnap

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when a snapshot cannot be created on an Infinite Volume because too many snapshots exist for the associated schedule.

Corrective Action

Delete an older snapshot associated with this schedule using the 'volume snapshot delete' command.

Syslog Message

Scheduled snapshot '%s' of volume '%s' on Vserver '%s' could not be created because too many snapshots exist for the associated schedule.

Parameters

snapshotName (STRING): Name of the snapshot.
volumeName (STRING): Name of the volume.
vserverName (STRING): Name of the Vserver.

mgmtgwd.upgrade events

mgmtgwd.upgrade.aborted

Severity

ALERT

Description

This message occurs when an upgrade task is aborted. The node will not be fully operational.

Corrective Action

(Call support).

Syslog Message

(None).

Parameters

(None).

mgmtgwd.upgrade.failed

Severity

ALERT

Description

This message occurs when one or more upgrade tasks fails. The node will not be fully operational.

Corrective Action

(Call support).

Syslog Message

(None).

Parameters

(None).

mgmtgwd.upgrade.started

Severity

INFORMATIONAL

Description

This message occurs when an upgrade is started.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgmtgwd.upgrade.success

Severity

INFORMATIONAL

Description

This message occurs when an upgrade is completed successfully.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgmtgwd.var events

mgmtgwd.var.recovery

Severity

EMERGENCY

Description

This message occurs when the system detects a missing or corrupted /var root directory. The node is not fully operational. Data LIFs might have failed over within the cluster, so NFS and CIFS access is limited on this node. There also might be a loss of stored data. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Contact NetApp technical support to obtain the recovery procedures.

Syslog Message

Part of the /var boot directory is missing. This node is not fully operational. Contact technical support to obtain the recovery procedures.

Parameters

(None).

mgmtgwd.volcreatedrestricted events

mgmtgwd.volcreatedrestricted

Severity

NOTICE

Description

This message occurs when a volume is created in the restricted state. This message is used to update the status of the health dashboard.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver (STRING): The vserver that owns the volume.
volume (STRING): The name of the volume.

mgmtgwd.volmove events

mgmtgwd.volmove.notoptimized

Severity

NOTICE

Description

This message occurs when a volume move operation does not take the optimized path to avoid read requests from a cloud-based tier.

Corrective Action

(None).

Syslog Message

Volume move operation from source aggregate "%s" to destination aggregate "%s" of volume "%s" on Vserver "%s" might need to copy data from existing objects in the capacity tier.

Parameters

    sourceAggregate (STRING): Name of the source aggregate.
    destinationAggregate (STRING): Name of the destination aggregate.
    volume (STRING): Name of the volume.
    Vserver (STRING): Vserver that owns the volume.
    errMsg (STRING): Error reason why volume move operation did not avoid reads from the cloud.

mgmtgwd.volmove.optimized

Severity

    NOTICE

Description

    This message occurs when a volume move operation avoids a read request from a cloud-based tier.

Corrective Action

    (None).

Syslog Message

    Volume move operation from source aggregate "%s" to destination aggregate "%s" of volume "%s" on Vserver "%s" avoided copying data from existing objects in the capacity tier.

Parameters

    sourceAggregate (STRING): Name of the source aggregate.
    destinationAggregate (STRING): Name of the destination aggregate.
    volume (STRING): Name of the volume.
    Vserver (STRING): Vserver that owns the volume.

mgmtgwd.vreport events

mgmtgwd.vreport.nodesUnreachable

Severity

    ERROR

Description

    This message occurs when the 'debug vreport' command found that some nodes were unreachable. Such nodes may contain WAFL-VLDB discrepancies which will not get reported.

Corrective Action

    The file mgwd.log logs the list of unavailable nodes. Ensure all these nodes are reachable from the node where the 'debug vreport' is run.

Syslog Message

    Vreport encountered some unreachable nodes. The report may be incomplete.

Parameters

    (None).

mgmtgwd.wafl events

mgmtgwd.wafl.rdb.autorecover

Severity

NOTICE

Description

This message occurs when the system will automatically enter RDB recovery because the system has detected that a root volume might have changed, possibly causing the local management databases to be out of sync with the replicated databases . This occurred due to corruption of the Non-Volatile RAM log (NVLOG) during takeover. The node is not fully operational. Data logical interfaces (LIFs) might have failed over within the cluster, so NFS and CIFS access is limited on this node. There also might have been a loss of stored data. Administrative capability is limited to local recovery procedures for this node.

Corrective Action

Use the command 'event log show' to monitor for RDB recovery completion. On successful RDB recovery completion, the event 'rdb.recovery.succeeded' will be generated. Should RDB recovery fail, the event 'rdb.recovery.failed' will be generated. Failure will also generate a 'callhome.root.vol.recovery.reqd' event.

Syslog Message

The system will automatically enter RDB recovery because the system has detected that a root volume might have changed, possibly causing the local management databases to be out of sync with the replicated databases.

Parameters

(None).

mgr events

mgr.avail events

mgr.avail.stat.reset

Severity

> NOTICE

Description

> This message is emitted when statistics is reset

Corrective Action

> (None).

Syslog Message

> Availability statistics reset

Parameters

> (None).

mgr.boot events

mgr.boot.bios_backup_flash

Severity

> ERROR

Description

> This message occurs when the system boots from its backup BIOS image because either it failed to boot
> from its primary BIOS image within the expected timeframe or the image is corrupted.

Corrective Action

> Power-cycle the system. If the system still does not boot from the primary BIOS image, contact technical
> support for assistance.

Syslog Message

> System boot from the primary BIOS flash image failed. system booted from the backup BIOS flash image.

Parameters

> (None).

mgr.boot.disk_done

Severity

> INFORMATIONAL

Description

> This message is sent when a system completes disk boot.

Corrective Action

(None).

Syslog Message

%s boot complete. Last disk update written at %s

Parameters

ver (STRING): (long) version of the OS which just booted
last_write_time (STRING): time at which the previous OS last wrote to disk

mgr.boot.floppy_25_7

Severity

NOTICE

Description

This message is sent when a system completes a 25/7 boot.

Corrective Action

(None).

Syslog Message

%s floppy boot complete (after 25/7).

Parameters

ver (STRING): (long) version of the OS which just booted

mgr.boot.floppy_done

Severity

INFORMATIONAL

Description

This message is sent when a system completes a plain old floppy boot.

Corrective Action

(None).

Syslog Message

%s floppy boot complete.

Parameters

ver (STRING): (long) version of the OS which just booted

mgr.boot.floppy_media

Severity

EMERGENCY

Description

This message is sent when a system completes a bypass_media boot.

Corrective Action

(None).

Syslog Message

%s floppy boot complete (with disk media errors bypassed).

Parameters

ver (STRING): (long) version of the OS which just booted

mgr.boot.floppy_prev_cp

Severity

INFORMATIONAL

Description

This message is sent when a system completes a prev_cp boot.

Corrective Action

(None).

Syslog Message

%s floppy boot complete (after prev_cp).

Parameters

ver (STRING): (long) version of the OS which just booted

mgr.boot.mroot.done

Severity

INFORMATIONAL

Description

This event marks the end of populating the mroot during the boot sequence; this event is generated immediately after the process of populating the mroot has completed.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgr.boot.mroot.start

Severity

INFORMATIONAL

Description

This event marks the start of populating the mroot during the boot sequence; this event is generated immediately before the process of populating the mroot begins.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgr.boot.new_OS2

Severity

NOTICE

Description

This message is sent when a system boots with a different OS version from before, and the previous version is known.

Corrective Action

(None).

Syslog Message

This system is running a new version of %s (was %s, now %s)

Parameters

osName (STRING): The flavor of operating system (Data ONTAP or NetCache)
oldOsVersion (STRING): The previous OS version
newOsVersion (STRING): The new OS version

mgr.boot.node.unstable

Severity

ALERT

Description

This message occurs when a node does not reach a stable state within 5 minutes after system boot. The system will continue booting while waiting for a stable state. Under a takeover scenario, the node has to be stable for giveback to be completed.

Corrective Action

Run the "storage failover show" command for takeover status. If the issue persists, contact NetApp technical support for assistance.

Syslog Message

The node has not reached a stable state within 5 minutes after system boot. Retries are in progress.

Parameters

(None).

mgr.boot.oldOFW

Severity

ERROR

Description

This message occurs when the system firmware is determined to be too old.

Corrective Action

For more information about upgrading your system firmware, check your support provider's web site or knowledgebase.

Syslog Message

The current system firmware version %s is too old. Upgrade to the minimum version %s or later.

Parameters

currentFW (STRING): Current system firmware version.
newFW (STRING): Desired system firmware version.

mgr.boot.pmroot.done

Severity

INFORMATIONAL

Description

This event marks the end of populating the pmroot during the boot sequence; this event is generated immediately after the process of populating the pmroot has completed.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgr.boot.pmroot.start

Severity

INFORMATIONAL

Description

This event marks the start of populating the pmroot during the boot sequence; this event is generated immediately before the process of populating the pmroot begins.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

mgr.boot.process.hung

Deprecated

Deprecated as of ONTAP 9.1. Last used in 9.0x.

Severity

ALERT

Description

This message occurs when a system detects an un-responsive process during system boot. The system will continue booting while waiting for the process to respond.

Corrective Action

Contact NetApp technical support to diagnose the issue further.

Syslog Message

The %s process is not responding. Error: %s

Parameters

process (STRING): The process that is hung.
error (STRING): An error message about the problem.

mgr.boot.reason_abnormal

Severity

EMERGENCY

Description

This message is sent when a system boots for abnormal reasons (panic, watchdog, etc). The message contains the reboot reason.

Corrective Action

(None).

Syslog Message

%s

Parameters

reboot_reason (STRING): reboot reason

mgr.boot.reason_ok

Severity

NOTICE

Description

This message is sent when a system boots for normal reasons (halt/reboot command, etc). The message contains the reboot reason.

Corrective Action

(None).

Syslog Message

%s

Parameters

reboot_reason (STRING): reboot reason

mgr.boot.unequalDist

Severity

ERROR

Description

This message occurs during system initialization when the local system finds that the number of disks that it can use to create a partitioned root aggregate is different than on the partner node.

Corrective Action

To create a system with an equal number of automatically partitioned disks on the local and partner systems: 1. Make sure that any failed disks in the internal shelf are replaced. 2. Remove ownership from all disks. The system automatically assigns one half of the disks to the local system and the other half to the partner node. To remove disk ownership, boot into maintenance mode and manually remove ownership by using the "disk remove_ownership" command.

Syslog Message

Warning: Unequal number of disks will be used for auto-partitioning of the root aggregate on the local system and HA partner. The local system will use %d disks but the HA partner will use %d disks. To correct this situation, boot both controllers into maintenance mode and remove the ownership of all disks.

Parameters

n_local (INT): Number of partitionable disks that are used by the local system.
n_partner (INT): Number of partitionable disks that are used by the partner system.

mgr.module events

mgr.module.address

Severity

NOTICE

Description

This occurs to inform you of where kernel modules were loaded in memory. This information helps NetApp technical support interpret the data in any mgr.stack.frameaddr events.

Corrective Action

(None).

Syslog Message

Module %s loaded from 0x%llx - 0x%llx.

Parameters

module_name (STRING): Name of the module.
module_start (PTR): Starting address of the module.
module_end (PTR): Ending address of the module.

mgr.partner events

mgr.partner.stack.saved

Severity

NOTICE

Description

This event is generated after a successful cluster takeover caused by a partner panic, and indicates partner stack trace information was collected from the time of the panic. Partner stack trace information is saved in the node status area of the cluster mailbox disk

Corrective Action

Generally when a panic occurs, if autosupport is configured a NetApp case is automatically created, case E-mail notifications are sent, and a point of contact at your site is contacted by NetApp technical support. If autosupport is not configured or if you are not sure a case was automatically created, contact NetApp technical support.

Syslog Message

Cluster takeover has saved partner panic stack trace information for logging.

Parameters

(None).

mgr.stack events

mgr.stack.at

Severity

NOTICE

Description

This message contains the panic string.

Corrective Action

(None).

Syslog Message

Panic occurred at: %s

Parameters

time (STRING): The time string

mgr.stack.checkpoint

Severity

NOTICE

Description

Logs the last checkpoint dumpcore crossed before failing.

Corrective Action

(None).

Syslog Message

Dumpcore failure: At checkpoint %d

Parameters

checkpoint (INT): (None).

mgr.stack.frame

Severity

NOTICE

Description

The stack frame: frame number, functionname, base, offset.

Corrective Action

(None).

Syslog Message

Stack frame %2d: %s(0x%llx) + 0x%x

Parameters

frame (INT): The frame number
sym (STRING): The symbolic name
base (PTR): The base address
offset (INTHEX): The offset

mgr.stack.frameaddr

Severity

NOTICE

Description

The stack frame: frame number, (no function name), base, offset.

Corrective Action

(None).

Syslog Message

Stack frame %2d: 0x%llx + 0x%x

Parameters

frame (INT): The frame number
base (PTR): The base address
offset (INTHEX): The offset

mgr.stack.framebase

Severity

NOTICE

Description

The stack frame: frame number, base address.

Corrective Action

(None).

Syslog Message

Stack frame %2d: 0x%llx

Parameters

frame (INT): The frame number
base (PTR): The base address

mgr.stack.longrun.proc

Severity

NOTICE

Description

The name of the process that hogged the cpu too long.

Corrective Action

(None).

Syslog Message

Long running process: %s

Parameters

name (STRING): The name of the process

mgr.stack.noFrames

Severity

NOTICE

Description

This message is emitted when no stack frames are available. This is normal on platforms which do not support stack tracing, or when the prior release did not support stack trace.

Corrective Action

(None).

Syslog Message

No stack frames available

Parameters

(None).

mgr.stack.proc

Severity

NOTICE

Description

The name of the process that we took the panic in.

Corrective Action

(None).

Syslog Message

Panic in process: %s

Parameters

name (STRING): The name of the process

mgr.stack.saved

Severity

NOTICE

Description

This message indicates that we've saved panic information in the NV RAM.

Corrective Action

(None).

Syslog Message

Reboot with saved panic information in log file

Parameters

(None).

mgr.stack.string

Severity

NOTICE

Description

This message contains the panic string.

Corrective Action

(None).

Syslog Message

Panic string: %s

Parameters

string (STRING): The panic string

mgwd events

mgwd.cluscheck events

mgwd.cluscheck.rmtDevRepair

Severity

NOTICE

Description

This message occurs when the system changes the cluster LIFs used for internal replicated database (RDB) operations, ensuring they are connected to different cluster switches for optimal cluster resiliency.

Corrective Action

(None).

Syslog Message

Cluster LIF "%s" with IP address %s connected to cluster switch "%s" is being replaced with cluster LIF "%s" with IP address %s connected to cluster switch "%s" in the RDB.

Parameters

existinglif (STRING): Cluster LIF being replaced.
existingaddress (STRING): IP address of the cluster LIF that is being replaced.
existingremotedevice (STRING): Cluster switch connected to the home port of the IP address being replaced.
replacementlif (STRING): Cluster LIF being added.
replacementaddress (STRING): IP address of the cluster LIF that is being added.
replacementremotedevice (STRING): Cluster switch connected to the home port of the IP address being added.

mgwd.notify events

mgwd.notify.halt.result

Severity

INFORMATIONAL

Description

This message reports the result of the Management Gateway process notification attempt to the Connectivity, Liveliness, Availability Monitor (CLAM) instance on its high-availability (HA) partner node that this node is undergoing a planned shutdown.

Corrective Action

(None).

Syslog Message

MGWD %s to notify CLAM on its HA partner node that this node is undergoing a planned shutdown (reason: %s). Error: %s

Parameters

    result (STRING): Result of the notify attempt.
    reason (STRING): Reason for the partner beginning the halt process.
    error (STRING): Error encountered in the notify attempt (if any).

mhost events

mhost.ca events

mhost.ca.connect.cert.error

Severity

ERROR

Description

This message occurs when the client connection has failed due to certificate error.

Corrective Action

Ensure that a valid certificate is loaded onto the remote service to which ONTAP® is attempting to connect and the corresponding CA certificate is loaded in ONTAP Use "security certificate show" CLI command to ensure a valid CA certificate is installed for the destination service. Use "security certificate install" CLI command to install a valid CA certificate.

Syslog Message

Cluster agent connection: %s has failed due to certificate error. Error: %s.

Parameters

client_name (STRING): Name of the client connection whose connection has an error.
error_msg (STRING): Error that has been reported for client connection.

mhost.ca.connect.delete

Severity

NOTICE

Description

This message occurs when the cluster agent connection is deleted upon user request.

Corrective Action

(None).

Syslog Message

Cluster agent connection to the client: %s is deleted upon user request.

Parameters

client_name (STRING): Name of the client connection whose connection is deleted.

mhost.ca.connect.failure

Severity

ERROR

Description

This message occurs when the cluster agent connection is not in a connected state. Reconnect attempt to establish a connection will be initiated automatically.

Corrective Action

Verify that the connection path to the destination is in healthy state and network security polices are configured as needed to permit connectivity. If this behavior persists, contact NetApp technical support.

Syslog Message

Cluster agent connection of the client: %s is not healthy. Attempting to reconnect. Error: %s.

Parameters

client_name (STRING): Name of the client connection whose connection has failed and reconnection is being attempted.
error_msg (STRING): Error that has been reported for client connection.

mhost.ca.connect.success

Severity

NOTICE

Description

This message occurs when the cluster agent connection is successfully established.

Corrective Action

(None).

Syslog Message

Cluster agent connection succeeded to the client: %s.

Parameters

client_name (STRING): Name of the client connection to which connection is established.

mhost.ca.msg.delivery.fail

Severity

ERROR

Description

This message occurs when the client is not able to deliver the message even when the client connection is in a connected state.

Corrective Action

For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "mhost.ca.msg.delivery.fail" keyword. If issue is not resolved, contact Contact NetApp technical support. for assistance.

Syslog Message

Cluster agent connection: %s is not able to send messages to remote service. Error: %s.

Parameters

client_name (STRING): Name of the client connection whose message delivery failed.
error_case (STRING): Use case which caused this error.

mhost.ca.node.offline

Severity

NOTICE

Description

This message occurs when the node that is hosting the cluster agent connection is offline. ONTAP® will automatically attempt to migrate the connection to an available healthy node.

Corrective Action

(None).

Syslog Message

Node "%s" hosting cluster agent connection "%s", is offline. ONTAP is attempting to migrate the connection to an available healthy node.

Parameters

node (STRING): Name of the node which is offline.
client_name (STRING): Name of the client connection whose connection will be rehosted.

mhost.ca.rehost.success

Severity

NOTICE

Description

This message occurs when the cluster agent connection of the client is rehosted successfully on a healthy node.

Corrective Action

(None).

Syslog Message

Cluster agent connection "%s" has migrated to node "%s".

Parameters

client_name (STRING): Name of the client connection that will be rehosted.
node (STRING): Name of the node to which the connection has migrated.

migrate events

migrate.root events

migrate.root.completed

Severity

NOTICE

Description

This message occurs when the migration of a root aggregate has completed successfully.

Corrective Action

(None).

Syslog Message

Root aggregate migration completed successfully on node %s.

Parameters

node (STRING): Name of the node that completed the migration.

migrate.root.failed

Severity

ERROR

Description

This message occurs when the migration of a root aggregate has failed.

Corrective Action

Run the "system node run -node nodename -command aggr status" command to determine if the target aggregate named "new_root" has been created. If not, address the error condition and attempt the "system node migrate-root" command again. If the new aggregate exists, contact technical support to complete the operation.

Syslog Message

Root aggregate migration failed on node %s. Reason: %s.

Parameters

node (STRING): Name of the node that failed to complete the migration.
reason (STRING): Reason that the migrate operation failed.

migrate.root.started

Severity

NOTICE

Description

This message occurs when the user initiates an attempt to move the root aggregate to a different set of disks on a node.

Corrective Action

(None).

Syslog Message

Root aggregate migration started on node %s.

Parameters

node (STRING): Name of the node.

misconfig events

misconfig.lif events

misconfig.lif.info.lost

Severity

NOTICE

Description

This message occurs when the record for the incorrectly placed LIF is lost during MetroCluster™ switchover or switchback. As a result, the "metrocluster check lif show" command will not be able to fetch the incorrectly placed LIF on the surviving cluster after executing "metrocluster switchover" and on the disaster cluster after executing "metrocluster switchback". Also, the incorrectly placed LIF cannot be placed correctly with the "metrocluster check lif repair-placement" command.

Corrective Action

The LIF is incorrectly placed and needs to be manually corrected. For an incorrectly placed LIF on HA partners, correct the "home-node" by using the "network interface modify -vserver <vserver_name> -lif <lif_name> -home-node <new_home_node>" command. For a LIF with a wrong port assignment, correct the "home-port" by using the "network interface modify -vserver <vserver_name> -lif <lif_name> -home-port <new_home_port>" command. For a SAN LIF, use the "network interface modify -vserver <vserver_name> -lif <lif_name> -status-admin down" command to bring down status-admin of the LIF, before modifying the "home-node" or the "home-port" of the LIF.

Syslog Message

LIF "%s" in Vserver "%s" incorrectly placed needs manual recovery. Reason: "%s".

Parameters

lif (STRING): LIF name.
vserver_name (STRING): Vserver name.
error (STRING): Reason for misconfigured LIF.

mlm events

mlm.arr events

mlm.arr.affinity.not.queued

Severity

NOTICE

Description

This message occurs when the current processing of an error event prevents the Asymmetric Logical Unit Access (ALUA) handler from queuing an affinity switch event.

Corrective Action

(None).

Syslog Message

Affinity event %s not queued for LUN %s.

Parameters

event (STRING): Affinity event for asymmetric array.
serialno (STRING): Serial number of the array LUN.

mlm.arr.many.affinity.error

Severity

ERROR

Description

This message occurs when the Asymmetric Logical Unit Access (ALUA) handler encounters too many affinity errors, which might lead to reduced I/O throughput.

Corrective Action

Evaluate the back-end array connectivity for optimal LUN balance across array controllers. Also check for failures reported by the back-end array with regards to ALUA target port group settings. Verify that FlexArray connectivity is done as per best-practice guide.

Syslog Message

Failing cmd %s for LUN %s due to too many affinity errors.

Parameters

cdb (STRING): String containing the opcode byte of the command descriptor block (CDB) that was sent to the device.
serialno (STRING): Serial number of the array LUN.

mlm.array events

mlm.array.aluaSupported

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array. Defines whether the array supports ALUA(asymmetric logical unit access) or not.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

Unsupported array: [Vendor '%s' Product '%s'] ALUA Support for array %s.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
alua (STRING): Whether the array supports ALUA or not.

mlm.array.apf.cancel

Severity

NOTICE

Description

This message occurs when any one of the path to an Array comes back online when the last path failure to an Array is extended.

Corrective Action

(None).

Syslog Message

Delay on last path to Array '%s' is cancelled as target port: WWNN: %s, WWPN: %s seen from initiator '%s' is up.

Parameters

arrayName (STRING): Name of the Array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
adapterName (STRING): Name of the Fibre Channel adapter accessing the array target port.

mlm.array.apf.enter

Severity

ALERT

Description

This message occurs when the all-path-fail-delay option for an Array is set to a non-zero value and when last path to an Array goes down. This allows Data ONTAP to suspend I/O operations for a longer period of time before declaring a data access disruption, allowing for I/O operations to resume if any path comes

back online within the specified duration.

Corrective Action

In such cases, you should evaluate the specified device for possible replacement. Sometimes the problem results from the partial failure of a component involved in the Fibre Channel. Common things to check include properly secured cable connections, and crimped or otherwise damaged cables. If the adapter is in use check cabling.

Syslog Message

Last path to Array '%s' target port: WWNN: %s, WWPN: %s seen from initiator '%s' is down. Failing this path will be extended for %d seconds.

Parameters

arrayName (STRING): Name of the Array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
adapterName (STRING): Name of the Fibre Channel adapter accessing the array target port.
delay (INT): All Path Fail delay in seconds.

mlm.array.apf.exit

Severity

NOTICE

Description

This message occurs when all path to an Array goes down and the Array remains inaccessible even after the extended duration is set by all-path-fail-delay option.

Corrective Action

(None).

Syslog Message

No path to Array '%s' came back online when last path failure is extended to %d seconds.

Parameters

arrayName (STRING): Name of the Array.
delay (INT): All Path Fail delay in seconds.

mlm.array.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new array.

Corrective Action

(None).

Syslog Message

A new array (%s) was connected to this node.

Parameters

arrayName (STRING): Name of the array.

mlm.array.inquiryPage80

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

Array LUN %s [S/N '%s' vendor '%s' product '%s'] Inquiry page 80: devtype '%d' page_code '%d' reserved '%d' page_len '%d' data '%s' hex_dump '%s'

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
dev_type (INT): Device type of the array LUN.
page_code (INT): Page code of the array LUN.
reserved (INT): Reserved fields in inquiry page 80.
page_len (INT): Inquiry page 80 length.
data (STRING): Serial number from inquiry page 80.
P_80_hex (STRING): Inquiry page 80 hexadecimal dump.

mlm.array.inquiryPage83

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

[Vendor '%s' Product '%s'] Inquiry page 83: devtype '%d' page_code '%d' reserved '%d' page_len '%d' code_set '%d' association_id '%d' reserved_msb '%d' id_len '%d' hex_dump '%s'.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
dev_type (INT): Device type of the array LUN.
page_code (INT): Page code of the array LUN.

reserved (INT): Reserved fields in inquiry page 83.
page_len (INT): Inquiry page 83 length.
code_set (INT): Inquiry page 83 code set.
association_id (INT): Inquiry page 83 association ID.
reserved_msb (INT): Most significant byte of page_len in SPC3 spec.
id_len (INT): Inquiry page 83 ID length.
P_83_hex (STRING): Inquiry page 83 hexadecimal dump.

mlm.array.inquiryStd

Severity
ERROR

Description
This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action
Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message
[S/N '%s' vendor '%s' product '%s'] STD inquiry : devtype '%d' dev_modifier '%d' support_level '%d' dev_mode '%d' revision '%s' hex_dump '%s'

Parameters
serialno (STRING): Serial number of the array LUN.
vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
dev_type (INT): Device type of the array LUN.
dev_modifier (INT): Device modifier of the array LUN.
support_level (INT): Support level.
dev_mode (INT): Development mode.
revision (STRING): Product revision level(product firmware release number).
inquiry_hex (STRING): Inquiry hexadecimal dump.

mlm.array.lun.discovery

Severity
INFORMATIONAL

Description
This message occurs when the system discovers a new array LUN.

Corrective Action
(None).

Syslog Message
New array LUN %s (S/N: %s) was discovered on initiator port %s at array target port WWNN: %s, WWPN: %s.

Parameters

> **diskName** (STRING): Name of the array LUN.
> **serialno** (STRING): Serial number of the array LUN.
> **adapter** (STRING): Name of the initiator port discovering the array LUN.
> **wwnn** (STRING): World Wide Node Name of the array target port exporting the new array LUN.
> **wwpn** (STRING): World Wide Port Name of the array target port exporting the new array LUN.

mlm.array.lun.forceResume

Severity

> ERROR

Description

> This message occurs when the system is forced to resume I/O to a previously quiesced array LUN path when no other viable non-quiesced paths remain. For arrays with asymmetric logical unit access a forced resume will also happen when there are no other viable non-quiesced paths on the current target port group.

Corrective Action

> Verify the configuration and check why array lun is usable through only one path.

Syslog Message

> Array LUN '%s' (%s) has had I/O resumed on the path from initiator %s to %s's target port: WWNN: %s, WWPN: %s to ensure LUN access through atleast one path. User settings are preempted.

Parameters

> **diskName** (STRING): Name of the array LUN.
> **serialno** (STRING): Serial number of the array LUN.
> **adapterName** (STRING): Name of the initiator port used to access the array LUN.
> **arrayName** (STRING): Name of the array.
> **wwnn** (STRING): World Wide Node Name of the array's target port.
> **wwpn** (STRING): World Wide Port Name of the array's target port.

mlm.array.lun.hiddenDMXVCMDB

Severity

> ERROR

Description

> This message occurs when the system determines that a Symmetrix LUN is write protected.

Corrective Action

> Either write enable the LUN or, if this is the Symmetrix VCMDB control device, consider unmapping the LUN to Data ONTAP.

Syslog Message

> Symmetrix LUN (%s, %s) is write protected and will be ignored. This logical unit may be the VCMDB control device.

Parameters

> **diskName** (STRING): Name of the LUN.
> **serialno** (STRING): Serial number of the LUN.

mlm.array.lun.multipleIDs

Severity

ALERT

Description

This message occurs when a logical device (LDEV) on an array has more than one LUN ID.

Corrective Action

Verify the LUN configuration and make sure that the LUN ID is the same on all array target ports.

Syslog Message

Array LUN '%s' (%s): Multiple LUN IDs are associated with the same LDEV on array %s. An LDEV can only have one LUN ID associated with it across all array target ports.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
arrayName (STRING): Name of the array.

mlm.array.lun.OnePath

Severity

ERROR

Description

This message occurs when an array LUN has only one path.

Corrective Action

Verify the configuration and make sure that there are at least two paths to this array LUN.

Syslog Message

Array LUN '%s' is connected using only one path. To avoid the potential for data loss caused by the remaining path's failure, all array LUNs should have at least two paths.

Parameters

diskName (STRING): Name of the array LUN.

mlm.array.lun.PathAdded

Severity

INFORMATIONAL

Description

This message occurs when a new path is added for an array LUN.

Corrective Action

(None).

Syslog Message

Array LUN '%s' (%s) is now connected on initiator port %s through %s's target port: WWNN: %s, WWPN:

%s at LUN ID: %d.

Parameters

diskName (STRING): Name of the array LUN
serialno (STRING): Serial number of the array LUN.
adapterName (STRING): Name of the Fibre Channel adapter used to access the array LUN.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
LUNID (INT): LUN ID to which a path was added.

mlm.array.lun.PathFO

Severity

NOTICE

Description

This message occurs when an array LUN path becomes inaccessible and after a user-configurable delay, a path failover begins if the path remains inaccessible. The delay time can be modified using the "storage array modify -name array_name -path-failover-time delay_time" command.

Corrective Action

(None).

Syslog Message

Path via adapter %s and device "%s" to array "%s" is currently offline, but path failover is delayed for %d seconds. After this delay, if the path is back online, I/O will resume on this same path. Otherwise, I/O will fail over to an alternate path.

Parameters

adapterName (STRING): Name of the adapter involved in the path offline operation.
deviceName (STRING): Name of the Fibre Channel device.
arrayName (STRING): Name of the array.
delay (INT): Path failover delay, in seconds.

mlm.array.lun.PathRemoved

Severity

INFORMATIONAL

Description

This message occurs when a path to this array LUN is removed.

Corrective Action

(None).

Syslog Message

Array LUN '%s' (%s) is no longer available on initiator port %s through %s's target port: WWNN: %s, WWPN: %s.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
adapterName (STRING): Name of the Fibre Channel adapter used to access the array LUN.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.

mlm.array.lun.quiesced

Severity

INFORMATIONAL

Description

This message occurs when I/O is quiesced on an array LUN.

Corrective Action

(None).

Syslog Message

Array LUN '%s' (%s) has had I/O quiesced on the path from initiator %s to %s's target port: WWNN: %s, WWPN: %s.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
adapterName (STRING): Name of the Fibre Channel adapter used to access the array LUN.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.

mlm.array.lun.removed

Severity

NOTICE

Description

This message occurs when the last path to an array LUN is removed.

Corrective Action

(None).

Syslog Message

Array LUN '%s' (%s) is no longer being presented to this node.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.

mlm.array.lun.resumed

Severity

INFORMATIONAL

Description

This message occurs when I/O is resumed on an array LUN that was quiesced.

Corrective Action

(None).

Syslog Message

Array LUN '%s' (%s) has had I/O resumed on the path from initiator %s to %s's target port: WWNN: %s, WWPN: %s.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
adapterName (STRING): Name of the Fibre Channel adapter used to access the array LUN.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.

mlm.array.lun.type.control

Severity

ERROR

Description

This message occurs when the array LUN is a control LUN on the array. A control LUN cannot be used as a data LUN.

Corrective Action

Disable or mask off control LUNs.

Syslog Message

Array LUN '%s' is a control LUN and is not usable for data storage. Disable it or mask it off.

Parameters

diskName (STRING): Name of the array LUN.

mlm.array.mixedFailoverMode

Severity

ALERT

Description

This message occurs when Data ONTAP® determines that the set of paths to a storage device is configured with more than one failover mode policy.

Corrective Action

Reconfigure the storage array so that each target port reports the same failover mode policy. When the reconfiguration is complete, reboot the system node that detected the error.

Syslog Message

Fibre Channel host bus adapter %s detects that storage array %s reports a failover mode policy (%s) on target port WWNN: %s, WWPN: %s that doesn't match the policy (%s) currently in effect. The failover mode policy must be consistent on each path presented.

Parameters

adapterName (STRING): Name of the Fibre Channel adapter detecting the failover mode conflict.
arrayName (STRING): Name of the array.
policy1 (STRING): Inconsistent failover mode policy detected.
wwnn (STRING): World Wide Node Name of the array target port reporting the inconsistent failover mode policy.
wwpn (STRING): World Wide Port Name of the array target port reporting the inconsistent failover mode policy.
policy2 (STRING): Failover mode policy currently in effect.

mlm.array.ndu.complete

Severity

INFORMATIONAL

Description

This message occurs when you set the is-upgrade-pending flag status for the array to "false".

Corrective Action

(None).

Syslog Message

Array '%s' has the is-upgrade-pending flag status set to "false".

Parameters

arrayName (STRING): Name of the array.

mlm.array.ndu.doneTgtPort

Severity

INFORMATIONAL

Description

This message occurs when you set the is-upgrade-pending flag status for the array to "false". This message is logged for every array target port seen by the initiators from this node.

Corrective Action

(None).

Syslog Message

Array '%s' has the is-upgrade-pending flag status set to "false" for the path from initiator '%s' to the target port: WWNN: %s, WWPN: %s.

Parameters

arrayName (STRING): Name of the array.
adapterName (STRING): Name of the Fibre Channel adapter accessing the array target port.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.

mlm.array.ndu.pending

Severity

INFORMATIONAL

Description

This message occurs when you set the is-upgrade-pending flag status to "true" for a specific array, to indicate that the array will undergo a firmware upgrade in the near future. After the upgrade is complete, you must manually set the is-upgrade-pending flag status back to "false" to maintain optimal path failover detection.

Corrective Action

(None).

Syslog Message

Array '%s' has its is-upgrade-pending flag status set to "true". Path failover performance will be degraded during the array firmware upgrade. After the upgrade is complete, set the is-upgrade-pending flag status for this array to "false".

Parameters

arrayName (STRING): Name of the array.

mlm.array.ndu.pendingTgtPort

Severity

INFORMATIONAL

Description

This message occurs when you set the is-upgrade-pending flag status for the array to "true". This message is logged for every array target port seen by the initiators from this node.

Corrective Action

(None).

Syslog Message

Array '%s' has the is-upgrade-pending flag status set to "true" for the path from initiator %s to the target port: WWNN: %s, WWPN: %s.

Parameters

arrayName (STRING): Name of the array.
adapterName (STRING): Name of the Fibre Channel adapter accessing the array target port.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.

mlm.array.ndu.portsDown

Severity

NOTICE

Description

This message occurs when the array target port does not come back online after 80 seconds. This message is logged for every array target port seen by the initiators of this node that does not come back online after the array firmware upgrade.

Corrective Action

(None).

Syslog Message

Array '%s' target port: WWNN: %s, WWPN: %s seen from initiator '%s' is down.

Parameters

arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
adapterName (STRING): Name of the Fibre Channel adapter accessing the array target port.

mlm.array.ndu.portsOffline

Severity

INFORMATIONAL

Description

This message occurs when all array ports for a specific array go offline while the array has its is-upgrade-pending flag status set to "true".

Corrective Action

(None).

Syslog Message

Array '%s' has target ports changed to offline state while its is-upgrade-pending status flag is set to "true".

Parameters

arrayName (STRING): Name of the array.

mlm.array.ndu.portsOnline

Severity

INFORMATIONAL

Description

This message occurs when the first array target port is detected back online after a firmware upgrade where the array is marked with the is-upgrade-pending flag status set to "true".

Corrective Action

(None).

Array '%s' has target ports changed to online state during a firmware upgrade.

Parameters

arrayName (STRING): Name of the array.

mlm.array.ndu.stillPending

Severity

ERROR

Description

This message occurs once every 60 minutes while the is-upgrade-pending flag status is set to "true" on an array. You should set the is-upgrade-pending flag status to "false" after the array firmware upgrade is complete to avoid path failover performance issues.

Corrective Action

After the array firmware upgrade is complete, set the is-upgrade-pending flag status for the array to "false".

Syslog Message

Array '%s' has the is-upgrade-pending flag status set to "true". After the array's firmware update is complete, set the is-upgrade-pending flag status for this array to "false".

Parameters

arrayName (STRING): Name of the array.

mlm.array.path.autoQuiesced

Severity

NOTICE

Description

This message occurs when the path to the array is quiesced,auto path quiesce happens when the number of path failures reached path_failure count in the given duration(in mins).

Corrective Action

(None).

Syslog Message

Path from initiator %s to array %s target_port:WWNN:%s,WWPN:%s has quiesced as path-failure has reached %d in %d mins duration.

Parameters

adapterName (STRING): Name of the Fibre Channel adapter used to access the path.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.
path_failure (INT): Number of failures occured in the specified path.
duration (INT): Duration in minutes to monitor the path failures.

mlm.array.path.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new path to an array.

Corrective Action

(None).

Syslog Message

A new path was discovered: initiator port %s is now connected to array %s's target port: WWNN: %s, WWPN: %s. There are %d array LUNs visible on this target port.

Parameters

adapter (STRING): Initiator port on which a new path to the array was discovered.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's newly discovered target port.
wwpn (STRING): World Wide Port Name of the array's newly discovered target port.
count (INT): Number of array LUNs visible on this target port.

mlm.array.path.forceResume

Severity

NOTICE

Description

This message occurs when the path to the array is resumed forcefully when no other path except the quiesced path available for I/O in the node.

Corrective Action

(None).

Syslog Message

Path from initiator %s to array %s target_port:WWNN:%s,WWPN:%s has resumed forcefully as it is the last available path for the I/O. User settings are preempted.

Parameters

adapterName (STRING): Name of the Fibre Channel adapter used to access the path.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.

mlm.array.path.quiesced

Severity

INFORMATIONAL

Description

This message occurs when the path to the array is quiesced when user request the particular path to be quiesced.

Corrective Action

(None).

Syslog Message

Path from initiator %s to array %s target_port:WWNN:%s,WWPN:%s has quiesced.

Parameters

adapterName (STRING): Name of the Fibre Channel adapter used to access the path.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.

mlm.array.path.resumed

Severity

INFORMATIONAL

Description

This message occurs when the path to the array is resumed.

Corrective Action

(None).

Syslog Message

Path from initiator %s to array %s target_port:WWNN:%s,WWPN:%s has resumed.

Parameters

adapterName (STRING): Name of the Fibre Channel adapter used to access the path.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port.
wwpn (STRING): World Wide Port Name of the array's target port.

mlm.array.port.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new target port for an array.

Corrective Action

(None).

Syslog Message

A new array target port was discovered on array %s: WWNN: %s, WWPN: %s.

Parameters

arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the new array target port.
wwpn (STRING): World Wide Port Name of the new array target port.

mlm.array.portDuplicateID

Severity

ALERT

Description

This message occurs when more than one logical device (LDEV) has the same LUN ID on the same array. The error is set on these logical devices and these devices will not function until the error is resolved.

Corrective Action

Ensure that each LDEV has a different LUN ID.

Syslog Message

%s: %d appears more than once on %s's target port: WWNN: %s, WWPN: %s. LUN ID reuse on an array target port is not supported, even in different host groups.

Parameters

diskName (STRING): Name of the array LUN.
lunid (INT): LUN ID that represents more than one LDEV.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port that is presenting this LUN ID.
wwpn (STRING): World Wide Port Name of the array's target port that is presenting this LUN ID.

mlm.array.portEmpty.direct

Severity

INFORMATIONAL

Description

This message occurs when a host group on an array is empty.

Corrective Action

(None).

Syslog Message

Fibre Channel host bus adapter %s reports no LUNs presented by storage array %s, target port WWNN: %s WWPN: %s.

Parameters

adapterName (STRING): Name of the initiator port detecting the empty host group.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.

mlm.array.portEmpty.switch

Severity

INFORMATIONAL

Description

This message occurs when a host group on an array is empty.

Corrective Action

(None).

Syslog Message

Fibre Channel host bus adapter %s reports no LUNs presented by storage array %s, target port WWNN: %s WWPN: %s, switch:port %s.

Parameters

adapterName (STRING): Name of the initiator port detecting the empty host group.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
switchPort (STRING): Name of the switch and port connected to the storage array.

mlm.array.portMixedAddress

Severity

EMERGENCY

Description

This message occurs when a back-end array is set to Volume Set Addressing mode on one port but not on another. This results in LUN IDs that do not match in value or format. The error is set on these logical devices and these devices will not function until the error is resolved.

Corrective Action

Consult the back-end array documentation to disable Volume Set Addressing mode on all ports.

Syslog Message

Array %s is using inconsistent LUN addressing schemes. Check LUN addressing settings on port WWNN: %s, WWPN %s.

Parameters

arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array's target port that is reporting Volume Set Addressing Enabled.
wwpn (STRING): World Wide Port Name of the array's target port that is reporting Volume Set Addressing Enabled.

mlm.array.portOneController

Severity

ERROR

Description

This message occurs when all paths for an array LUN are connected to the same controller on the array. This configuration results in a single point of failure at the array.

Corrective Action

Reconfigure your back-end SAN so that array LUNs are presented from controllers in different fault domains on the target array.

Syslog Message

All paths for array LUN %s are connected to the same controller on array %s. This configuration is a single point of failure. Ensure that array LUNs are accessible through controllers in different fault domains.

Parameters

diskName (STRING): Name of the array LUN.
arrayName (STRING): Name of the array.

mlm.array.prCapabilities

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

[Vendor '%s' Product '%s'] PR_CAP : sip_c : %x, atp_c : %x, res_c : %x, ptpl_c : %x.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
sip_c (INTHEX): Specify initiator ports capable bit.
atp_c (INTHEX): All target ports capable bit.
res_c (INTHEX): Reserved bit.
ptpl_c (INTHEX): Persist through power loss capable bit.

mlm.array.prReadReservation

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

[Vendor '%s' Product '%s'] Data_key : '0x%llx' Reservation : generation '%u' length '%u' resv_key '0x%llx' scope_address '%u' scope_type '0x%x' extent_len '%d' hex_dump '%s'.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
resv_key (LONGINTHEX): SCSI persistent reservation key.

generation (INT): SCSI persistent reserve data generation value.
len (INT): SCSI persistent reserve data header generation length.
read_in_resv_key (LONGINTHEX): SCSI persistent reserve data reservation key.
scope_address (INT): SCSI persistent reserve data scope address.
scope_type (INTHEX): SCSI persistent reserve data scope.
extent_length (INT): SCSI persistent reserve data extent length.
pr_reservation_hex (STRING): SCSI persistent reservation hexadecimal dump.

mlm.array.reportluns

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

Unsupported array: [Vendor '%s' Product '%s'] Report LUNs: lun_count '%d' reserved field '%d'.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
lun_count (INT): Total number of LUNs visible.
reserved (INT): Report luns reserved field.

mlm.array.rptpgs

Severity

ERROR

Description

This message occurs when the system detects an array LUN from an unsupported array.

Corrective Action

Detach the unsupported array. See the NetApp Support Site Interoperability Matrix Tool for further information about supported arrays.

Syslog Message

Unsupported array: [Vendor '%s' Product '%s'] ASS : %d , Access flag : %d.

Parameters

vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.
aas (INT): Asymmetric Access State.
flags (INT): Access state flags.

mlm.array.setPortTPQD

Severity

INFORMATIONAL

Description

This message occurs when you set the target port queue depth for a specific target port of an array.

Corrective Action

(None).

Syslog Message

Array '%s' target port: WWNN: %s, WWPN: %s has a target port queue depth value set to %d.

Parameters

arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name of the array target port.
wwpn (STRING): World Wide Port Name of the array target port.
tpqd (INT): Target port queue depth value set for the specified target port of an array.

mlm.array.setTPQD

Severity

INFORMATIONAL

Description

This message occurs when you set the target port queue depth for an array.

Corrective Action

(None).

Syslog Message

Target ports on the array '%s' have a target port queue depth value set to %d.

Parameters

arrayName (STRING): Name of the array.
tpqd (INT): Target port queue depth value set for the target ports of the array.

mlm.array.unknown

Severity

ERROR

Description

This message occurs when an array LUN is detected from an unknown array that is not supported in this version of Data ONTAP®.

Corrective Action

Remove the array from the system.

Syslog Message

Array LUN %s [S/N '%s' vendor '%s' product '%s'] is unknown and is not supported in this version of Data ONTAP.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.

mlm.array.unsupported

Severity

NOTICE

Description

This message occurs when an array LUN is detected from an unsupported array.

Corrective Action

(None).

Syslog Message

Array LUN %s [S/N '%s' vendor '%s' product '%s'] is not supported in this version of Data ONTAP.

Parameters

diskName (STRING): Name of the array LUN.
serialno (STRING): Serial number of the array LUN.
vendor (STRING): Vendor ID of the array LUN.
product (STRING): Product ID of the array LUN.

mlm.arraylun events

mlm.arrayLUN.limit.exceeded

Severity

ALERT

Description

This message occurs when Data ONTAP® cannot install one or more discovered array LUNs since the disk device count is at full capacity.

Corrective Action

If possible, remove an existing disk or array LUN so that array LUN installation can proceed. If the failure persists, contact NetApp technical support.

Syslog Message

Unable to install one or more array LUNs [vendor '%s' product '%s'] discovered on initiator port %s, array target port WWNN: %s, WWPN: %s. The disk device limit (%d) has been reached.

Parameters

vendor (STRING): Vendor ID of the storage array.
product (STRING): Product ID of the storage array.
adapter (STRING): Name of the initiator port discovering the array LUN(s).
wwnn (STRING): World Wide Node Name of the array target port exporting the array LUN(s).
wwpn (STRING): World Wide Port Name of the array target port exporting the array LUN(s).
limit (INT): Disk device maximum count.

mlm.bad events

mlm.bad.topology.data

Severity

ERROR

Description

This message occurs when a device reports invalid data for "REPORT LUNS" command. The invalid data may include one or more instances of duplicate LUN IDs and/or the "list length value" from the "REPORT LUNS" command may not match the amount of data received.

Corrective Action

Repair or replace the faulty hardware associated with the wwnn and wwpn

Syslog Message

The device with wwnn %s and wwpn %s is reporting inconsistent "REPORT LUNS" data.

Parameters

wwnn (STRING): World Wide Node Name(wwnn) of the Device.
wwpn (STRING): World Wide Port Name(wwpn) of the Device.

mlm.excessive events

mlm.excessive.TPlatency

Severity

NOTICE

Description

This message occurs when ONTAP® detects that the average SCSI I/O command latency on the target port of the array exceeds the set threshold. This message indicates a degradation of I/O throughput for the target port of the array.

Corrective Action

Reduce the I/O load on the device, increase the number of array target ports available for I/O, and/or alleviate the cause for the excessive latency on the device.

Syslog Message

Average latency of %dus on target port %s, has exceeded %dus

Parameters

> **avg_latency** (INT): Current average latency of commands for the array target port in microseconds.
> **wwpn** (STRING): World Wide Port Name of the array target port on which the excessive latency was detected.
> **threshold** (INT): Threshold value for excessive average latency in microseconds.

mlm.non events

mlm.non.optimized.TPusage

Severity

> ERROR

Description

> This message occurs when Data ONTAP® detects non-optimized usage of an array's target port. This message indicates degradation of I/O throughput for the indicated array's target port and the cause should be corrected.

Corrective Action

> Increase the target port queue depth for the array's target port and/or increase the number of array target ports available for I/O to alleviate the SCSI I/O command load for the array's target port. For example, to increase the maximum allowed I/O commands for an array's target port, the following command can be run: storage array port modify -name ARRAY_NAME_1 -wwnn 50014380025d1500 -wwpn 50014380025d1508 -max-queue-depth 750

Syslog Message

> Detected non-optimized usage of a array's target port. WWPN: %s, average service time: %dus, average latency: %dus

Parameters

> **wwpn** (STRING): World Wide Port Name of the array's target port which the non-optimized usage was detected on.
> **avg_service** (INT): Current average service time of I/O commands for the array's target port in microseconds.
> **avg_latency** (INT): Current average latency of I/O commands for the array's target port in microseconds.

mlm.prregistration events

mlm.PRregistration.failed

Severity

> ERROR

Description

> This message occurs when the registration of a SCSI persistent reservation key fails. A number of conditions can cause this SCSI command to fail and most are transitory in nature. If there is not a subsequent EMS_mlm_PRregistration_succeeded message, it is indicative of a persistent hardware fault.

Corrective Action

> A SCSI persistent registration failure normally indicates an error at the device during execution of the requested command. Such cases are often the result of an intermittent device hardware that is

automatically handled by the Data ONTAP® drivers through retries. In cases of repeated events, the specified device should be evaluated for proper operation and possible repair or replacement.

Syslog Message

A SCSI persistent registration command failed on device %s on initiator port %s, target port World Wide Node Name %s, target port World Wide Port Name %s with a ha status of 0x%x, target status of 0x%x, sense key of 0x%x, additional sense code of 0x%x, additional sense code qualifier of 0x%x.

Parameters

device_name (STRING): Electrical path name of the device on which the error occurred.
ha_name (STRING): Name of the initiator port.
wwnn (STRING): World Wide Node Name of the target port.
wwpn (STRING): World Wide Port Name of the target port.
ha_status (INTHEX): Integer value of the hardware adapter status for the failed command.
target_status (INTHEX): Integer value of the target status for the failed command.
sense_key (INTHEX): Integer value of the sense key for the failed command.
asc (INTHEX): Integer value of the additional sense code for the failed command.
asq (INTHEX): Integer value of the additional sense code qualifier for the failed command.

mlm.PRregistration.succeeded

Severity

INFORMATIONAL

Description

This message occurs when a successful registration of a SCSI persistent reservation key occurs that had previously failed.

Corrective Action

(None).

Syslog Message

A SCSI persistent reservation command succeeded on device %s on initiator port %s, target port World Wide Node Name %s, target port World Wide Port Name %s where it had previously failed.

Parameters

device_name (STRING): Electrical path name of the device on which the registration succeeded.
ha_name (STRING): Name of the initiator port.
wwnn (STRING): World Wide Node Name of the target port.
wwpn (STRING): World Wide Port Name of the target port.

mlm.scsi events

mlm.SCSI.supportLvl.bad

Severity

ALERT

Description

This message occurs when an array target port contains SCSI INQUIRY data with an incorrect support level. To prevent a possible data corruption scenario, the target port is not used.

Corrective Action

Verify that the SPC-2 bit in the array's host group is set.

Syslog Message

The target port containing SCSI INQUIRY DATA %s:%s with a (WWPN) of %s, has an incorrect SCSI support level; it will not be available.

Parameters

vendorId (STRING): Vendor ID from the SCSI INQUIRY data.
productId (STRING): Product ID from the SCSI INQUIRY data.
wwpn (STRING): World Wide Port Name (WWPN) of the target port that has the incorrect SCSI support level.

mlm.SCSI.supportLvl.good

Severity

NOTICE

Description

This message occurs when an array target port that previously contained SCSI INQUIRY data with an incorrect support level has been corrected.

Corrective Action

(None).

Syslog Message

The target port containing SCSI INQUIRY DATA %s:%s with a (WWPN) of %s, now has a correct SCSI support level.

Parameters

vendorId (STRING): Vendor ID from the SCSI INQUIRY data.
productId (STRING): Product ID from the SCSI INQUIRY data.
wwpn (STRING): World Wide Port Name (WWPN) of the target port that now has the correct SCSI support level.

mlm.tapemc events

mlm.tapemc.lun.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new tape or media changer logical unit (Tape/MC LUN) reported by a tape library.

Corrective Action

(None).

Syslog Message

New %s LUN %s (S/N: %s) was discovered on initiator port %s at tape library target port WWNN: %s, WWPN: %s.

Parameters

deviceType (STRING): Type of LUN device.
deviceName (STRING): Name of the Tape/MC LUN.
serialno (STRING): Serial number of the LUN.
adapterName (STRING): Name of the initiator port discovering the LUN.
wwnn (STRING): World Wide Node Name(WWNN) of the library target port exporting the new LUN.
wwpn (STRING): World Wide Port Name(WWPN) of the library target port exporting the new LUN.

mlm.tapemc.lun.noInit

Severity

ERROR

Description

This message occurs when the initialization sequence for a tape or media changer logical unit (LUN) fails.

Corrective Action

An expected LUN might be missing from the configuration. Information about the path to the LUN might be unknown but the product information in the log may help identify the missing LUN. Check the device LUN configuration settings.

Syslog Message

%s device %sL%d failed LUN initialization sequence at phase %s.

Parameters

deviceType (STRING): Type of LUN device.
deviceName (STRING): Name of the device on which the LUN initialization fails.
lunid (INT): LUN ID of the device on which LUN initialization fails.
lunInitPhase (STRING): Failing LUN initialization phase.

mlm.tapemc.lun.PathAdded

Severity

INFORMATIONAL

Description

This message occurs when a new path is added for a tape or media changer logical unit (Tape/MC LUN).

Corrective Action

(None).

Syslog Message

%s LUN '%s' (S/N: %s) is now connected on initiator port %s through %s's target port: WWNN: %s, WWPN: %s at LUN ID: %d.

Parameters

deviceType (STRING): Type of LUN device.

deviceName (STRING): Name of the Tape/MC LUN.
serialno (STRING): Serial number of the LUN.
adapterName (STRING): Name of the adapter used to access the LUN.
libraryName (STRING): Name of the library.
wwnn (STRING): World Wide Node Name(WWNN) of the library target port.
wwpn (STRING): World Wide Port Name(WWPN) of the library target port.
LUNID (INT): LUN ID to which a path was added.

mlm.tapemc.lun.PathRemoved

Severity

INFORMATIONAL

Description

This message occurs when a path to this tape or media changer logical unit (Tape/MC LUN) is removed.

Corrective Action

(None).

Syslog Message

The %s LUN '%s' (S/N: %s) is no longer available on initiator port %s through %s's target port: WWNN: %s, WWPN: %s.

Parameters

deviceType (STRING): Type of LUN device.
deviceName (STRING): Name of the Tape/MC LUN.
serialno (STRING): Serial number of the LUN.
adapterName (STRING): Name of the adapter used to access the LUN.
libraryName (STRING): Name of the library.
wwnn (STRING): World Wide Node Name(WWNN) of the library target port.
wwpn (STRING): World Wide Port Name(WWPN) of the library target port.

mlm.tapemc.lun.removed

Severity

NOTICE

Description

This message occurs when the last path to a tape or media changer logical unit (Tape/MC LUN) is removed.

Corrective Action

(None).

Syslog Message

The %s LUN '%s' (S/N: %s) is no longer visible to this node.

Parameters

deviceType (STRING): Type of LUN device.
deviceName (STRING): Name of the Tape/MC LUN.
serialno (STRING): Serial number of the LUN.

mlm.tapemc.path.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new tape or media changer logical unit (Tape/MC LUN) path.

Corrective Action

(None).

Syslog Message

A new Tape/MC path was discovered: initiator port %s is now connected to tape library %s's target port: WWNN: %s, WWPN: %s. There are %d LUNs visible on this target port.

Parameters

adapterName (STRING): Name of the initiator port discovering the Tape/MC LUN.
libraryName (STRING): Name of the tape library.
wwnn (STRING): World Wide Node Name(WWNN) of the library target port exporting the new LUN.
wwpn (STRING): World Wide Port Name(WWPN) of the library target port exporting the new LUN.
count (INT): Number of LUNs visible on this port.

mlm.tpqd events

mlm.TPQD.TPutilization

Severity

ERROR

Description

This message occurs when Data ONTAP® has lowered the number of I/O commands that are allowed to be active by at least 25 percent for an array's target port. This message indicates degradation of I/O throughput for the indicated array's target port and the cause should be corrected.

Corrective Action

Analyze the EMS logs for EMS_fci_device_timeout, EMS_scsi_cmd_adapterResources or EMS_scsi_cmd_targetStatus indicating of "Busy" or "Queue Full" events associated to the array's target port and correct any hardware faults. Reduce the shared load on the device and/or reduce the maximum allowed I/O commands for the array's target port. For example, to reduce the maximum allowed I/O commands for an array's target port, the following command can be run: storage array port modify -name ARRAY_NAME_1 -wwnn 50014380025d1500 -wwpn 50014380025d1508 -max-queue-depth 256

Syslog Message

Array target port of %s has had its dynamic target port queue depth lowered to %d which is 25%% or lower of its maximum allowed value of %d.

Parameters

wwpn (STRING): World Wide Port Name of the array's target port which has its queue depth decreased by 25% or more.
current_qdepth (INT): Current number of allowed active I/O commands for the array's target port.
max_qdepth (INT): Maximum allowed value of the array's target port queue depth.

mlm.vmdisk events

mlm.vmdisk.discovery

Severity

INFORMATIONAL

Description

This message occurs when the system discovers a new virtual disk in a virtual machine (VM).

Corrective Action

(None).

Syslog Message

A new virtual disk with virtual device ID %d was discovered on initiator port %s on array %s with target port WWNN %s and WWPN: %s.

Parameters

VirtualDeviceID (INT): Virtual device ID of the virtual disk.
adapterName (STRING): Name of the initiator port discovering the virtual disk.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name (WWNN) of the array target port exporting the new virtual disk.
wwpn (STRING): World Wide Port Name (WWPN) of the array target port exporting the new virtual disk.

mlm.vmdisk.PathAdded

Severity

INFORMATIONAL

Description

This message occurs when a new path is added for a virtual disk in a virtual machine (VM).

Corrective Action

(None).

Syslog Message

Virtual disk '%s' (%s) is now connected on initiator port %s through %s's target port: WWNN: %s, WWPN: %s at virtual device ID: %d.

Parameters

diskName (STRING): Name of the virtual disk
serialno (STRING): Serial number of the virtual disk.
adapterName (STRING): Name of the initiator port discovering the virtual disk path.
arrayName (STRING): Name of the array.
wwnn (STRING): World Wide Node Name (WWNN) of the array target port.
wwpn (STRING): World Wide Port Name (WWPN) of the array target port.
VirtualDeviceID (INT): Virtual device ID of the virtual disk.

monitor events

monitor.brokendisk events

monitor.brokenDisk.notice

Severity

NOTICE

Description

This message occurs when a node is in a degraded state because of a broken disk. The timeout values indicate how long the system will run after each boot before shutting down because of this condition. Shutdown is to encourage you to replace broken disks. * The timeout[123] values are duplicated as a convenience for the Syslog message, which prints out the value three times.

Corrective Action

Consult other logged messages to determine the identity of broken disks, or use the "storage disk show -broken" command. Replace any broken disks. The %d hour timeout can be increased by altering the "raid.timeout" value using the "storage raid-options modify" command.

Syslog Message

%s, the system shuts down automatically every %d hours to encourage you to replace the disk. If you reboot the system, it will run for another %d hours before shutting down.

Parameters

type (STRING): Type of degradation.
timeout1 (INT): Timeout value.
timeout2 (INT): Timeout value.
timeout3 (INT): Timeout value.

monitor.chassisfan events

monitor.chassisFan.degraded

Severity

ALERT

Description

This message occurs when a chassis fan is degraded.

Corrective Action

Replace the fan unit.

Syslog Message

Chassis fan is degraded: %s

Parameters

fan_name (STRING): Name of the fan.

monitor.chassisFan.ok

Severity

NOTICE

Description

This message occurs when the chassis fans are OK.

Corrective Action

(None).

Syslog Message

Chassis fan %s is ok.

Parameters

fru_name (STRING): Name of the field-replaceable unit (FRU) containing the fan.

monitor.chassisFan.removed

Severity

ALERT

Description

This message occurs when a chassis fan is removed This is a warning message.

Corrective Action

Reinsert the FRU.

Syslog Message

Chassis fan %s is removed

Parameters

fan_name (STRING): Name of the field-replaceable unit (FRU) containing the fan.

monitor.chassisFan.stop

Severity

ERROR

Description

This message occurs when a chassis fan is stopped. This is a warning message.

Corrective Action

Reseat the FRU. If the FRU is an I/O module, schedule unit downtime and power off the unit before reseating the FRU. If the error persists, replace the FRU.

Syslog Message

Chassis fan contains at least one stopped fan: %s

Parameters

fru_name (STRING): Name of the field-replaceable unit (FRU) containing the fan.

monitor.chassisFan.warning

Severity

ALERT

Description

This message occurs when a chassis fan is spinning either too slowly or too fast. This is a warning message.

Corrective Action

Replace the FRU.

Syslog Message

Chassis fan is in warning state: %s

Parameters

fru_name (STRING): Name of the field-replaceable unit (FRU) containing the fan.

monitor.chassisfanfail events

monitor.chassisFanFail.xMinShutdown

Severity

EMERGENCY

Description

This message occurs when multiple chassis fans have failed, and the system will shut down in a few minutes unless corrected.

Corrective Action

Reseat the chassis fans. If they do not restart, replace them.

Syslog Message

Multiple Chassis Fan failure: System will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system will shut down.

monitor.chassispower events

monitor.chassisPower.degraded

Severity

ALERT

Description

This message occurs when a power supply is degraded.

Corrective Action

Degraded power might be caused by bad power supplies, bad wall power, or bad components on the motherboard. If spare power supplies are available, try exchanging them to see if that alleviates the problem. Otherwise contact NetApp technical support for further direction.

Syslog Message

Chassis power is degraded: %s

Parameters

reasonText (STRING): Description of the degradation.

monitor.chassisPower.ok

Severity

NOTICE

Description

This message occurs when the motherboard power is OK.

Corrective Action

(None).

Syslog Message

Chassis power is OK.

Parameters

(None).

monitor.chassispowersupplies events

monitor.chassisPowerSupplies.ok

Severity

INFORMATIONAL

Description

This message occurs when all power supplies are OK.

Corrective Action

(None).

Syslog Message

Chassis power supplies OK.

Parameters

(None).

monitor.chassispowersupply events

monitor.chassisPowerSupply.degraded

Severity

NOTICE

Description

This message occurs when a power supply is degraded.

Corrective Action

A replacement power supply might be required. Contact NetApp technical support for further direction.

Syslog Message

Chassis power supply %d is degraded: %s

Parameters

ps_number (INT): Power supply number.
reasonText (STRING): Description of the degradation.

monitor.chassisPowerSupply.notPresent

Severity

NOTICE

Description

This message occurs when an expected a power supply is not present.

Corrective Action

Add a power supply to the controller chassis.

Syslog Message

Chassis power supply %d is not present.

Parameters

ps_number (INT): Power supply number.

monitor.chassisPowerSupply.off

Severity

NOTICE

Description

This message occurs when a power supply is off.

Corrective Action

Turn on the power supply.

Syslog Message

Chassis power supply %d off.

Parameters

ps_number (INT): Power supply number.

monitor.chassisPowerSupply.ok

Severity

INFORMATIONAL

Description

This message occurs when the power supply is OK.

Corrective Action

(None).

Syslog Message

Chassis power supply %d is OK.

Parameters

ps_number (INT): Power supply number.

monitor.chassistemperature events

monitor.chassisTemperature.cool

Severity

ALERT

Description

This message occurs when the chassis temperature is too cool. This is a warning message.

Corrective Action

The appliance cannot function in an environment that is too cold; find ways to warm the appliance.

Syslog Message

Chassis temperature is too cool: %s

Parameters

describe_toocool (STRING): Description of the condition.

monitor.chassisTemperature.ok

Severity

NOTICE

Description

This message occurs when the chassis temperature is normal.

Corrective Action

(None).

Syslog Message

Chassis temperature is ok.

Parameters

(None).

monitor.chassisTemperature.state.unknown

Severity

ALERT

Description

This message occurs when the system cannot read multiple chassis temperature sensors. The condition can be caused by software, firmware, or hardware problems.

Corrective Action

Arrange to AC power-cycle the unit to address possible software and firmware issues. If the condition persists, contact NetApp technical support for assistance with Processor Control Module (PCM) replacement.

Syslog Message

Chassis temperature state is unknown: %s.

Parameters

reasonText (STRING): Description of the temperature sensor issue.

monitor.chassisTemperature.warm

Severity

ALERT

Description

This message occurs when the chassis temperature is too warm. This is a warning message. If the condition persists, the system will shut down automatically.

Corrective Action

Ensure that sufficient cooling air is being supplied to the chassis and that the air inlets and outlets of the unit are not blocked. If you cannot resolve the situation, shut down all clients that are attached to the storage appliance, and then shut down the system.

Syslog Message

Chassis temperature is too warm: %s

Parameters

describe_toowarm (STRING): Description of the condition.

monitor.completed events

monitor.completed.iron

Severity
ERROR

Description
This message occurs when wafliron in the optional commit mode has finished on the aggregate but changes have not been committed or rejected. Either commit or reject the changes.

Corrective Action
Run the "aggr waflrion commit VOL" command to commit the changes or the "aggr wafliron reject VOL" command to reject the changes.

Syslog Message
Wafliron in the optional commit mode has completed on aggregate '%s' but the changes have not been committed or rejected. Either commit or reject the changes.

Parameters
volname (STRING): Volume name

monitor.cpu events

monitor.cpu.ok

Severity
INFORMATIONAL

Description
This message occurs when the CPU busy situation is corrected.

Corrective Action
(None).

Syslog Message
%s

Parameters
report (STRING): Description of the current CPU usage.

monitor.cpu.tooBusy

Severity
NOTICE

Description
This message occurs when the CPU is too busy.

Corrective Action
(None).

Syslog Message

Warning: %s

Parameters

report (STRING): Description of the problem.

monitor.disklabelcheckfailed events

monitor.diskLabelCheckFailed

Severity

NOTICE

Description

This message occurs when the system detects that a file system disk has an invalid or a missing RAID label. The system corrects the situation during the next label update.

Corrective Action

No user action is required.

Syslog Message

Periodic check of RAID %s has failed. The system will correct the problem.

Parameters

disk_info (STRING): Formatted information of the disk object.
label_block_num (INT): Label block number code.
label_state (INT): Label state code.
label_read_error (INT): Label read error code.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk in RPM.

monitor.downrevdisks events

monitor.downRevDisks

Severity

ERROR

Description

This message occurs when ONTAP® detects that downrev disks are still present in the system.

Corrective Action

Download the latest disk firmware on each node and ensure that automatic background firmware update is enabled. If necessary, use the (advanced privilege) "storage disk firmware update" command to manually

update disk firmware. Consult the man page for cautions.

Syslog Message

Downrev disks still present!!

Parameters

(None).

monitor.extcache events

monitor.extCache.failed

Severity

NOTICE

Description

This message occurs when the monitor detects the WAFL® external cache subsystem (FlexScale) has failed and is no longer available for use.

Corrective Action

Consult the system logs to determine the original cause of the error.

Syslog Message

FlexScale WAFL external cache is unavailable due to an earlier fatal error.

Parameters

(None).

monitor.fan events

monitor.fan.critical

Severity

EMERGENCY

Description

This message occurs when one or more main unit fans have failed. The system cannot continue to operate.

Corrective Action

Replace the failed fans.

Syslog Message

%s

Parameters

report (STRING): Report indicating the critical state.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

monitor.fan.failed

Severity

ALERT

Description

This message occurs when one or more main unit fans have failed. The system remains operational. If the condition persists too long, an automatic shutdown for overtemperature might occur.

Corrective Action

Reseat the failed fans. If the error persists, replace them.

Syslog Message

%s

Parameters

report (STRING): Report indicating the failed fans.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

monitor.fan.ok

Severity

NOTICE

Description

This message occurs when a previously failed main unit fan has been restarted.

Corrective Action

(None).

Syslog Message

%s

Parameters

report (STRING): Report indicating that the failed fans have restarted.

monitor.fan.warning

Severity

NOTICE

Description

This message occurs when one or more fans are in a warning state.

Corrective Action

Replace the indicated fans to avoid overheating.

Syslog Message

%s

Parameters

report (STRING): Report indicating the warning level.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

monitor.fru events

monitor.fru.info.readable

Severity

INFORMATIONAL

Description

This message occurs when the inventory information about a field-replaceable unit (FRU) that was previously unreadable becomes readable.

Corrective Action

(None).

Syslog Message

The inventory information of FRU %s is readable.

Parameters

fru_name (STRING): FRU name.

monitor.fru.info.unreadable

Severity

ERROR

Description

This message occurs when the inventory information of a field-replaceable unit (FRU) is not readable.

Corrective Action

See the system hardware guide for the replacement of the FRU. At the earliest convenient time, remove and reinsert the FRU to reseat it, and then resume normal system operation. If the error persists, replace the FRU according to the hardware guide directions.

Syslog Message

The inventory information of FRU %s is not readable.

Parameters

fru_name (STRING): FRU name.

monitor.globalstatus events

monitor.globalStatus.critical

Severity

EMERGENCY

Description

This message occurs when the system's global health is critical; for example, if a fan failed.

Corrective Action

Check the event log for other conditions that can cause this global status message. Follow the corrective actions in those messages.

Syslog Message

%s

Parameters

problem (STRING): System problem description.

monitor.globalStatus.nonCritical

Severity

ERROR

Description

This message occurs when the system's global health is degraded; for example, if a file system is nearly full.

Corrective Action

Check the event log for other conditions that can cause this global status message. Follow the corrective actions in those messages.

Syslog Message

%s

Parameters

problem (STRING): System problem description.

monitor.globalStatus.nonRecoverable

Severity

EMERGENCY

Description

This message occurs when the system's global health is non-recoverable, and the system is shutting down. There are currently no examples of this failure.

Corrective Action

Check the event log for other conditions that can cause this global status message. Follow the corrective actions in those messages.

Syslog Message

%s

Parameters

problem (STRING): System problem description.

monitor.globalStatus.ok

Severity

NOTICE

Description

This message occurs when the system's global health returns to normal.

Corrective Action

(None).

Syslog Message

%s

Parameters

problem (STRING): Description of the system's normal condition.

monitor.iocard events

monitor.ioCard.degraded

Severity

ALERT

Description

This message indicates that an I/O card is degraded.

Corrective Action

Exchange or replace the card with a known good card in the same I/O slot. If the problem persists, contact NetApp technical support for replacement assistance.

Syslog Message

IO card is degraded: %s

Parameters

reasonText (STRING): Slot number of the card and the reason the card is degraded.

monitor.ioCard.ok

Severity

NOTICE

Description

This message indicates that an I/O card is operating properly.

Corrective Action

None.

Syslog Message

IO card on slot %d is OK

Parameters

slot_number (INT): Slot number of the card.

monitor.ioexpansionpower events

monitor.ioexpansionPower.degraded

Severity

NOTICE

Description

This message indicates that power on the I/O expansion module is degraded.

Corrective Action

Degraded power might be caused by bad power supplies, bad wall power, or bad components on the motherboard. If spare power supplies are available, try exchanging them to see whether the problem is resolved. Otherwise, contact NetApp technical support.

Syslog Message

Power on I/O expansion module is degraded: %s

Parameters

reasonText (STRING): Reading and state of voltage sensors on the I/O expansion module.

monitor.ioexpansionPower.ok

Severity

NOTICE

Description

This messages indicates that power on the I/O expansion module is OK.

Corrective Action

No corrective action is needed.

Syslog Message

Power on the I/O expansion module is OK.

Parameters

(None).

monitor.ioexpansiontemperature events

monitor.ioexpansionTemperature.cool

Severity

EMERGENCY

Description

This warning message occurs when the I/O expansion module is too cold.

Corrective Action

The system cannot function in an environment that is too cold; find ways to warm the system.

Syslog Message

I/O expansion module is too cold: %s

Parameters

describe_toocool (STRING): Reading and state of the temperature sensors on the I/O expansion module.

monitor.ioexpansionTemperature.ok

Severity

NOTICE

Description

This message occurs when the temperature of the I/O expansion module is normal. It can occur for the following two cases: 1) LOG_NOTICE to show that a bad condition has reverted to normal. 2) LOG_INFO for hourly to indicate that the temperature is OK.

Corrective Action

No corrective action is needed.

Syslog Message

Temperature of the I/O expansion module is OK.

Parameters

(None).

monitor.ioexpansionTemperature.warm

Deprecated

Deprecated as of version 9.2.0 to address the EMS ID length violation.

Severity

ALERT

Description

This warning message occurs when the I/O expansion module is too warm.

Corrective Action

Evaluate the environment in which the system is functioning: are air conditioning units needed or is the current air conditioning not functioning properly?

Syslog Message

I/O expansion module is too warm: %s

Parameters

> **describe_toowarm** (STRING): Reading and state of the temperature sensors on the I/O expansion module.

monitor.ioxmtemp events

monitor.ioxmTemp.warm

Severity

> ALERT

Description

> This message occurs when the I/O module is above the recommended operating temperature.

Corrective Action

> Evaluate the environment in which the system is functioning for proper air flow and temperature control.

Syslog Message

> I/O expansion module is too warm: %s

Parameters

> **describe_toowarm** (STRING): Reading and state of the temperature sensors on the I/O expansion module.

monitor.mismatch events

monitor.mismatch.hourly

Severity

> ALERT

Description

> This message occurs when the version of ONTAP® is not supported on this hardware. You cannot run a version of ONTAP produced by one vendor on hardware supplied by another. The system will shut down if you do not install a correctly branded version of ONTAP.

Corrective Action

> Install a correctly branded version of ONTAP before the timer expires.

Syslog Message

> ONTAP detected a branding mismatch. The hardware is branded by %s and ONTAP is branded by %s. There are %d hour(s) left before shutdown. Install a version of ONTAP branded by your hardware vendor.

Parameters

> **hardware** (STRING): Vendor brand associated with the hardware.
> **software** (STRING): Vendor brand associated with the version of ONTAP.
> **hours** (INT): Number of hours before shutdown.

monitor.mismatch.shutdown

Severity

EMERGENCY

Description

This message occurs when the system shuts down because the hardware brand does not match the ONTAP® version brand.

Corrective Action

Install a correctly branded version of ONTAP to prevent subsequent shutdowns for brand mismatch. Monitor the EMS_monitor_mismatch_hourly message to determine when the next shutdown will occur because of the brand mismatch.

Syslog Message

Shutting down because of a software branding mismatch. The hardware is branded by %s and ONTAP is branded by %s.

Parameters

hardware (STRING): Vendor brand associated with the hardware.
software (STRING): Vendor brand associated with the version. of ONTAP.

monitor.nvmembattery events

monitor.nvmembattery.warninglow

Severity

ALERT

Description

This message occurs when the nonvolatile memory (NVMEM) battery charge is low.

Corrective Action

Replace the NVMEM battery as soon as possible.

Syslog Message

NVMEM battery is low on power and should be replaced as soon as possible.

Parameters

(None).

monitor.nvramlowbatteries events

monitor.nvramLowBatteries

Severity

EMERGENCY

Description

This message occurs when the NVRAM batteries are at a dangerously low power level.

Corrective Action

Replace the NVRAM batteries.

Syslog Message

NVRAM batteries are dangerously low.

Parameters

(None).

monitor.nvramLowBatteries.notice

Severity

NOTICE

Description

This message occurs when a low batteries situation exists. The timeout[123] values are duplicated as a convenience for the Syslog message, which prints out the value three times.

Corrective Action

Replace the NVRAM batteries.

Syslog Message

If the NVRAM batteries are dangerously low, the system shuts down automatically every %d hours to encourage you to replace them. If you reboot the system it will run for another %d hours before shutting down.

Parameters

timeout1 (INT): Timeout value.
timeout2 (INT): Timeout value.
timeout3 (INT): Timeout value.

monitor.nvramlowbattery events

monitor.nvramLowBattery

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery is at a dangerously low power level.

Corrective Action

Replace the NVRAM battery.

Syslog Message

NVRAM battery is dangerously low.

Parameters

(None).

monitor.nvramLowBattery.notice

Severity

NOTICE

Description

This message occurs when a low battery situation exists. The timeout[123] values are duplicated as a convenience for the Syslog message, which prints out the value three times.

Corrective Action

Replace the NVRAM battery.

Syslog Message

If the NVRAM battery is dangerously low, the system shuts down automatically every %d hours to encourage you to replace it. If you reboot the system it will run for another %d hours before shutting down.

Parameters

timeout1 (INT): Timeout value.
timeout2 (INT): Timeout value.
timeout3 (INT): Timeout value.

monitor.partnercontroller events

monitor.partnerController.notPresent

Severity

ALERT

Description

This message occurs when both controllers are configured as an HA (high-availability) pair, but the partner controller is not present. The system fan will run at a higher speed to prevent overheating due to the non-optimum air flow with only one controller in place.

Corrective Action

Put the partner controller back into the HA configuration; otherwise, the system fan will run at a higher speed to prevent overheating due to the non-optimum air flow with only one controller in place.

Syslog Message

Both controllers are configured as an HA (high-availability) pair, but the partner controller is not present. The system fan will run at a higher speed to prevent possible overheating.

Parameters

(None).

monitor.power events

monitor.power.degraded

Deprecated

Deprecated as of version 9.2. Last used in 7.3.6 on Tin and Dell one-PSU systems. It is the last user of

snmp trap 43.

Severity

EMERGENCY

Description

This message occurs when the main unit power supply is in a degraded mode.

Corrective Action

(Call support).

Syslog Message

Power supply is in degraded mode: %s

Parameters

report (STRING): Description of the problem.

monitor.power.normal

Severity

INFORMATIONAL

Description

This message occurs when the system has sufficient power (220V) to power up both controllers.

Corrective Action

(None).

Syslog Message

The power provided to the system is sufficient.

Parameters

(None).

monitor.power.not.sufficient

Severity

ALERT

Description

This message occurs when a storage system in a low-line (110V) power configuration does not have sufficient power to support both controllers. The built-in hardware logic prevents the controller in the bottom slot from powering up.

Corrective Action

A high-line (220V) power configuration is needed to power up both controllers. Power off the system, connect the power supply unit (PSU) with 220V power, and then power up the system.

Syslog Message

The bottom controller is not powered up due to insufficient power.

Parameters

(None).

monitor.power.unreadable

Severity

ERROR

Description

This message occurs when a power sensor in the controller module is not readable.

Corrective Action

Shut down the system and power-cycle the controller module. If the sensor is still not readable, replace the controller module.

Syslog Message

A power sensor %s in the controller module is not readable.

Parameters

sensor_name (STRING): Sensor name.

monitor.raid events

monitor.raid.brokenDisk

Severity

ERROR

Description

This message occurs when the monitor detects a broken disk.

Corrective Action

Replace the disk.

Syslog Message

%s in RAID group "%s" %s broken.

Parameters

type (STRING): Type of disk.
rgname (STRING): Name of the RAID group.
verb (STRING): Description of the broken state.

monitor.raid.reconstruct

Severity

NOTICE

Description

This message occurs when a RAID reconstruct is initiated.

Corrective Action

No user action is required for the reconstruct operation to succeed. Refrain from removing disks from the affected RAID group until reconstruction is completed.

Syslog Message

Reconstructing broken %s in RAID group "%s".

Parameters

type (STRING): Type of disk.
rgname (STRING): RAID group name.

monitor.raid.reconstruct.susp

Severity

ERROR

Description

This message occurs when a RAID reconstruction needs to be performed on a RAID group, but reconstruction is suspended or disabled.

Corrective Action

Contact NetApp technical support for assistance with reenabling RAID reconstruction.

Syslog Message

Reconstruction needs to be performed on RAID group "%s", but RAID reconstruction is suspended or disabled.

Parameters

rgname (STRING): RAID group name.

monitor.raiddp events

monitor.raiddp.vol.singleDegraded

Severity

ERROR

Description

This message occurs as part of an hourly system check when a double parity volume is in single degraded mode. This happens when there is a disk failure in the double parity volume and the RAID subsystem cannot find a suitable replacement disk to start reconstruction.

Corrective Action

Add a spare disk suitable to reconstruction.

Syslog Message

%s in RAID group "%s" is broken.

Parameters

type (STRING): Type of disk: data, parity or dparity disk.
rgname (STRING): RAID group name.

monitor.raidtec events

monitor.raidtec.dblDegraded

Severity

ERROR

Description

This message occurs as part of an hourly system check, when a RAID-TEC aggregate is in double degraded mode. This happens when there are two disk failures in any RAID group in the RAID-TEC aggregate and the RAID subsystem cannot find suitable replacement disks to start reconstruction. One more disk failure in the same RAID group leads to the aggregate being in its worst degraded state.

Corrective Action

Replace the failed disks, which are identifiable by lighted fault LED lights, to start reconstruction. After reconstruction is complete, the output of the "aggr show" command shows that the aggregate is back to normal state.

Syslog Message

%s in RAID group "%s" are broken.

Parameters

type (STRING): Type of disks: data, parity, dparity, or tparity disk.
rgname (STRING): RAID group name.

monitor.rtchighpower events

monitor.rtcHighPower

Severity

ERROR

Description

This message occurs when the real-time clock (RTC) battery voltage is above normal level.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the real-time clock battery voltage is still above normal 60 minutes after environmental problems have been corrected, replace it at the next available maintenance window.

Syslog Message

Real-time clock battery voltage is above normal (%s).

Parameters

reading (STRING): Battery voltage reading (mV).

monitor.rtclowpower events

monitor.rtcLowPower

Severity

ERROR

Description

This message occurs when the real-time clock (RTC) battery is at a dangerously low power level.

Corrective Action

Replace the real-time clock battery.

Syslog Message

Real-time clock battery is dangerously low. Replace it at the next available maintenance window.

Parameters

(None).

monitor.rtcnormal events

monitor.rtcNormal

Severity

NOTICE

Description

This message occurs when the real-time clock (RTC) battery voltage is normal. Previously occurred fault is now cleared.

Corrective Action

(None).

Syslog Message

Real-time clock battery voltage is normal.

Parameters

(None).

monitor.rtcwarnlowpower events

monitor.rtcWarnLowPower

Severity

ERROR

Description

This message occurs when the real-time clock (RTC) battery is at a "warning low" voltage level.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the real-time clock battery voltage is still below normal 60 minutes after environmental problems have been corrected, replace it at the

next available maintenance window.

Syslog Message

Real-time clock battery voltage is below normal (%s).

Parameters

reading (STRING): Battery voltage reading (mV).

monitor.shelf events

monitor.shelf.accessError

Severity

ALERT

Description

This message occurs when the monitor detects that a disk shelf access error has occurred. The message is also an hourly reminder that the error has not been corrected. Enclosure Services is unable to monitor or control one or more disk shelves on a particular Fibre Channel loop or Serial SCSI Attach (SAS) domain because it cannot communicate with the enclosure services processes in those shelves.

Corrective Action

Check the corrective actions of enclosure services error messages that might precede this error in the log. Ensure that all loop or domain connections are latched and secured properly. Correct any error conditions indicated by LEDs on any of the shelves or shelf I/O modules. This might require power-cycling of shelves or replacement of modules, as is appropriate to the particular shelf type.

Syslog Message

Enclosure services has detected an error in access to shelves on channel %s.

Parameters

channel (STRING): Adapter slot or switch port that has detected the fault; for example, "7a" or "myswitch:5".

monitor.shelf.accessError.ok

Severity

NOTICE

Description

This message occurs when the monitor detects that a previously detected shelf access error has been corrected.

Corrective Action

(None).

Syslog Message

Enclosure services-detected shelf access error has been corrected on channel %s.

Parameters

channel (STRING): Adapter slot or switch port where the error was corrected.

monitor.shelf.configError

Severity

ALERT

Description

This message occurs when the Enclosure Services process notifes the monitor of a disk shelf configuration error. The message is also an houly reminder that the error has not been corrected. Configuration errors might cause Enclosure Services to be unable to monitor a disk shelf, or might indicate shelf configuration or interconnect problems; for example, too few power supplies in a disk shelf, or improper mixing of modules in a shelf or on a loop.

Corrective Action

See the EMS message concerning disk shelf configuration errors that preceded the first instance of this message, and follow the corrective actions therein.

Syslog Message

Enclosure services has detected an error in access to shelves or shelf configuration on channel %s.

Parameters

channel (STRING): Adapter slot or switch port that has detected the fault; for example, "7a" or "myswitch:5".

monitor.shelf.configError.ok

Severity

NOTICE

Description

This message occurs when the monitor detects that a previously detected shelf configuration error has been corrected.

Corrective Action

(None).

Syslog Message

Enclosure services-detected configuration error has been corrected on channel %s.

Parameters

channel (STRING): Adapter slot or switch port where the fault existed.

monitor.shelf.fault

Severity

ALERT

Description

This message occurs when the system detects a critical disk shelf fault. It is also an hourly reminder that the condition has not been corrected.

Corrective Action

Check the event log for more specific shelf error messages, and follow the corrective actions there. Use the "storage shelf show" and "storage shelf show -errors" commands to display the current shelf status.

Syslog Message

Critical fault reported on disk storage shelf attached to channel %s. Check fans, power supplies, disks, and temperature sensors.

Parameters

channel (STRING): Adapter slot or switch port that has detected the fault; for example, "7a" or "myswitch:5".

monitor.shelf.fault.ok

Severity

NOTICE

Description

This message occurs when the monitor detects that a previously detected shelf fault has been corrected.

Corrective Action

(None).

Syslog Message

Fault previously reported on disk storage shelf attached to channel %s has been corrected.

Parameters

channel (STRING): Adapter slot or switch port where the error has been corrected; for example,"7a" or "myswitch:5".

monitor.shelf.warning

Severity

ERROR

Description

This message occurs when the system detects a disk shelf warning. It is also an hourly reminder that the condition has not been corrected.

Corrective Action

Check the messages log for more specific shelf error messages, and follow the corrective actions there.

Syslog Message

Fault reported on disk storage shelf attached to channel %s. Check fans, power supplies, disks, and temperature sensors.

Parameters

channel (STRING): Adapter slot or switch port that has detected the fault; for example, "7a" or "myswitch:5".

monitor.shutdown events

monitor.shutdown.brokenDisk

Severity

EMERGENCY

Description

This message occurs when an automatic shutdown sequence is initiated due to a degraded RAID group that cannot be reconstructed because there are insufficient appropriate spare disks. The timeout period is specified by the "raid.timeout" option, which must be set by user to a nonzero value in order for the system to shutdown on expiry of the timeout period. If the option is not set or is set to zero, then system will not shut down due to a degraded RAID group.

Corrective Action

To recover from the shutdown, boot the system. Ensure that there are sufficient spare disks of the appropriate type so that the degraded RAID group can be reconstructed.

Syslog Message

%s in RAID group "%s" %s broken. Halting system now.

Parameters

type (STRING): Type of disk.
rgname (STRING): RAID group name.
verb (STRING): Description of the broken state.

monitor.shutdown.brokenDisk.pending

Severity

NOTICE

Description

This message occurs when an automatic shutdown sequence has been postponed due to RAID reconstruction.

Corrective Action

(None).

Syslog Message

%s in RAID group "%s" %s broken. Halting system in %d hour%s.

Parameters

type (STRING): Type of disk.
rgname (STRING): RAID group name.
verb (STRING): Description of the broken state.
countdown (INT): Number of hours remaining to shutdown.
plural (STRING): Plural character.

monitor.shutdown.cancel

Severity

NOTICE

Description

This message occurs when an automatic shutdown sequence is canceled.

Corrective Action

(None).

Syslog Message

Automatic shutdown sequence canceled.

Parameters

(None).

monitor.shutdown.cancel.brokenDisk

Severity

NOTICE

Description

This message occurs when an automatic shutdown sequence has been postponed due to RAID reconstruction

Corrective Action

(None).

Syslog Message

%s in RAID group "%s" %s broken. Halt delayed until %s finishes.

Parameters

type (STRING): Type of disk.
rgname (STRING): RAID group name.
verb (STRING): Description of the broken state.
reason (STRING): Reason that the shutdown was postponed. Possible reasons are "RAID reconstruction" and "parity recomputation".

monitor.shutdown.cancel.nvramLowBatteries

Severity

NOTICE

Description

This message occurs when an automatic shutdown sequence has been postponed due to RAID reconstruction.

Corrective Action

(None).

Syslog Message

NVRAM batteries are dangerously low. Halt delayed until %s finishes.

Parameters

reason (STRING): Reason that the shutdown was postponed. Possible reasons are "RAID reconstruct" and "parity recomputation".

monitor.shutdown.cancel.nvramLowBattery

Severity

NOTICE

Description

This message occurs when an automatic shutdown sequence has been postponed due to RAID reconstruction

Corrective Action

(None).

Syslog Message

NVRAM battery is dangerously low. Halt delayed until %s finishes.

Parameters

reason (STRING): Reason that the shutdown was postponed. Possible reasons are "RAID reconstruct" and "parity recomputation".

monitor.shutdown.chassisOverTemp

Severity

EMERGENCY

Description

This message occurs when the chassis temperature is too hot. This is sent just before shutdown.

Corrective Action

Ensure that sufficient cooling air is being supplied to the chassis and that the air inlets and outlets of the unit are not blocked.

Syslog Message

Chassis temperature is too hot: %s

Parameters

describe_toohot (STRING): Description of the condition.

monitor.shutdown.chassisUnderTemp

Severity

ERROR

Description

This message occurs when the system is shutting down because chassis temperature is too cold.

Corrective Action

The appliance is in an environment that is too cold. Find a way to warm the environment around the appliance.

Syslog Message

Chassis temperature is too cold: %s

Parameters

describe_toocold (STRING): Description of the condition.

monitor.shutdown.emergency

Severity

EMERGENCY

Description

This message occurs when ONTAP® initiates an emergency shutdown.

Corrective Action

Correct the condition noted in the reason field.

Syslog Message

Emergency shutdown: %s

Parameters

reason (STRING): Reason for the shutdown.

monitor.shutdown.ioexpansionOverTemp

Severity

EMERGENCY

Description

This message occurs when the I/O expansion module is too hot. This message is sent just before shutdown.

Corrective Action

The system environment is too hot; cool the environment.

Syslog Message

I/O expansion module is too hot: %s

Parameters

describe_toohot (STRING): Reading and state of the temperature sensors on the I/O expansion module.

monitor.shutdown.ioexpansionUnderTemp

Severity

EMERGENCY

Description

This message occurs when the I/O expansion module is too cold. This message is sent just before shutdown.

Corrective Action

The system environment is too cold; warm the environment.

Syslog Message

I/O expansion module is too cold: %s

Parameters

describe_toocold (STRING): Reading and state of the temperature sensors on the I/O expansion module.

monitor.shutdown.nvramLowBatteries

Severity

EMERGENCY

Description

This message occurs when the NVRAM power in a controller with multiple NVRAM batteries is dangerously low, and ONTAP® initiates a shutdown to protect user data.

Corrective Action

Replace the controller NVRAM batteries.

Syslog Message

Emergency shutdown: NVRAM batteries dangerously low in degraded mode. Replace the batteries immediately!

Parameters

(None).

monitor.shutdown.nvramLowBatteries.pending

Severity

ALERT

Description

This message occurs when an automatic shutdown sequence is pending because of low NVRAM batteries voltage.

Corrective Action

Replace the controller NVRAM batteries.

Syslog Message

NVRAM batteries are dangerously low. Halting system in %d hour%s. Replace the batteries immediately!

Parameters

countdown (INT): Hours remaining until shutdown.
plural (STRING): Grammatical number.

monitor.shutdown.nvramLowBattery

Severity

EMERGENCY

Description

This message occurs when the controller NVRAM voltage is dangerously low, and ONTAP® initiates a shutdown to protect user data.

Corrective Action

Replace the controller NVRAM battery.

Syslog Message

Emergency shutdown: NVRAM battery dangerously low in degraded mode. Replace the battery immediately!

Parameters

(None).

monitor.shutdown.nvramLowBattery.pending

Severity

ALERT

Description

This message occurs when an automatic shutdown sequence is pending because of low NVRAM battery voltage.

Corrective Action

Replace the controller NVRAM battery.

Syslog Message

NVRAM battery is dangerously low. Halting system in %d hour%s. Replace the battery immediately!

Parameters

countdown (INT): Hours remaining until shutdown.
plural (STRING): Grammatical number.

monitor.sparelabelcheckfailed events

monitor.spareLabelCheckFailed

Severity

NOTICE

Description

This message occurs when the system detects that a hot spare disk has an invalid or a missing label. The system corrects the situation by rewriting the label.

Corrective Action

No user action is required.

Syslog Message

Periodic check of hot spare %s has failed. The system will correct the problem.

Parameters

disk_info (STRING): Formatted information of the disk object.
label_block_num (INT): Label block number code.
label_state (INT): Label state code.
label_read_error (INT): Label read error code.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk in RPM.

monitor.temp events

monitor.temp.unreadable

Severity

ERROR

Description

This message occurs when the controller module temperature is not readable. In this condition, the system does not automatically shut down if it becomes too hot for reliable operation.

Corrective Action

Shut down the system and power-cycle the controller module. If the temperature is still not readable, replace the controller module.

Syslog Message

The controller temperature (%s) is not readable.

Parameters

sensor_name (STRING): Sensor name.

monitor.unknown events

monitor.unknown.message

Severity

ERROR

Description

This message occurs when the status monitor receives an unexpected message type. This is an internal

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error.

Corrective Action

(None).

Syslog Message

Internal error: status monitor received message type %d, expected type %d

Parameters

msgType (INT): (None).
expectedType (INT): (None).

monitor.vol events

monitor.vol.full.inc.sav

Severity

ALERT

Description

This message occurs when one or more file systems are full, typically indicating at least 98% full. Space usage is computed based on the active file system size as well as all of the space saved by storage efficiency features. This value is computed by subtracting the value of the "Snapshot Reserve" field, and is equivalent to the "logical-used" field of the "volume show-space" command. The volume can be over 100% full due to space used or including savings by storage efficiency features or reserved by metadata. A value greater than 100% can cause the volume to become logically overallocated. See the "vol.log.overalloc.inc.sav" event message for more information.

Corrective Action

Create space by increasing the volume size, deleting data, or deleting snapshots. To increase volume size, use the "volume size" command. To delete snapshots, use the "volume snapshot delete" command.

Syslog Message

%s %s%s%s (UUID %s) is full (reserved or using %d%% of space including savings and %d%% of inodes).

Parameters

object_type (STRING): Identifier for the type of object to which this event applies. This event should be applicable only to volumes with logical space enforcement enabled.
name (STRING): Name of this object.
app (STRING): Application Universally Unique ID (UUID).
vserver_uuid (STRING): UUID of the object's or volume's Vserver.
object_uuid (STRING): UUID of the object or volume.
percent_full_blocks (INT): Used capacity of the space of the object, as a percentage.
percent_full_inodes (INT): Used capacity of inodes of the object, as a percent.

monitor.vol.nearFull.inc.sav

Severity

ALERT

Description

This message occurs when one or more file systems are nearly full, typically indicating at least 95% full. Space usage is based on the active file system size as well as all of the space saved by storage efficiency features. This value is computed by subtracting the value of the "Snapshot Reserve" field, and is equivalent to the "logical-used" field of the "volume show-space" command.

Corrective Action

Create space by increasing the volume size, deleting data, or deleting snapshots. To increase volume size, use the "volume size" command. To delete snapshots, use the "volume snapshot delete" command.

Syslog Message

%s %s%s%s (UUID %s) is nearly full (reserved or using %d%% of space including savings and %d%% of inodes).

Parameters

object_type (STRING): Identifier for the type of object to which this event applies. This event should be applicable only to volumes with logical space enforcement enabled.
name (STRING): Name of this object.
app (STRING): Application Universally Unique ID (UUID).
vserver_uuid (STRING): UUID of the object's or volume's Vserver.
object_uuid (STRING): UUID of the object or volume.
percent_full_blocks (INT): Used capacity of the space of the object, including space saved by the storage efficiency features, as a percentage.
percent_full_inodes (INT): Used capacity of inodes of the object, as a percentage.

monitor.volume events

monitor.volume.full

Severity

ALERT

Description

This message occurs when one or more file systems are full, typically indicating at least 98% full. The space usage is computed based on the active file system size and is computed by subtracting the value of the "Snapshot Reserve" field from the value of the "Used" field of the "volume show-space" command. Either a volume or an aggregate can be over 100% full due to space used or reserved by metadata. A value greater than 100% might cause Snapshot copy space to become unavailable or cause a volume to become logically overallocated. See the "vol.log.overalloc" EMS message for more information.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume or aggregate size, or by deleting data or deleting Snapshot copies. To increase a volume's size, use the "volume size" command. To delete a volume's Snapshot copy, use the "volume snapshot delete" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate Snapshot copies are deleted automatically when the aggregate is full. For ASA r2 platforms, create space in the volume or aggregate. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

%s "%s%s%s" is full (using or reserving %s%% of space and %s%% of inodes).

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
name (STRING): Name of this object.
app (STRING): Application universal unique identifier (UUID)
vserver_uuid (STRING): UUID of the object's storage virtual machine (SVM), if the object is a volume. Otherwise, this string is empty.
percent_full_blocks (STRING): Used capacity of the space of the object, as a percentage.
percent_full_inodes (STRING): Used capacity of inodes of the object, as a percentage.

monitor.volume.nearlyFull

Severity

ERROR

Description

This message occurs when one or more file systems are nearly full, typically indicating at least 95% full. The space usage is computed based on the active file system size and is computed by subtracting the value of the "Snapshot Reserve" field from the value of the "Used" field of the "volume show-space" command.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume or aggregate sizes, or by deleting data or deleting Snapshot copies. To increase a volume's size, use the "volume size" command. To delete a volume's Snapshot copies, use the "volume snapshot delete" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate Snapshot copies are deleted automatically when the aggregate is full. For ASA r2 platforms, create space in the volume or aggregate. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

%s %s%s%s is nearly full (using or reserving %s%% of space and %s%% of inodes).

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
name (STRING): Name of this object.
app (STRING): Application universal unique identifier(UUID).
vserver_uuid (STRING): UUID of the object's storage virtual machine (SVM), if the object is a volume. Otherwise, this string is empty.
percent_full_blocks (STRING): Used capacity of the space of the object, as a percent.
percent_full_inodes (STRING): Used capacity of inodes of the object, as a percent.

monitor.weeklystatsasup events

monitor.weeklyStatsASUP.off

Severity

ERROR

Description

This message occurs when weekly performance AutoSupport(tm) is disabled.

Corrective Action

Enable the weekly performance AutoSupport by entering the "options stats.autosupport.weekly.enable on" command. You must have the correct privilege to run this command.

Syslog Message

Weekly performance AutoSupport has been disabled.

Parameters

(None).

moveagent events

moveagent.abort events

moveagent.abort.cutover

Severity

INFORMATIONAL

Description

This event is issued during volume move when cutover is aborted because the volume took too long to replicate. The volume is unquiesced.

Corrective Action

The move job can be in process of retry. User can try '-force-cutover true' to force cutover.

Syslog Message

Cutover abort due to volume quiesce timer expiration: volume dsid %llu.

Parameters

volume_dsid (LONGINT): The source volume data set identifier (dsid)

moveagent.cleanup events

moveagent.cleanup.dest

Severity

ERROR

Description

This message occurs when a volume move operation running on the partner cluster is interrupted by a disaster recovery event (such as switchover or switchback) in the MetroCluster(tm) configuration before the operation reaches the cutover phase. This leaves the temporary destination volume created on this cluster in an incomplete state. The temporary destination volume must be deleted.

Corrective Action

If necessary, identify which temporary destination volume must be deleted by running the "volume show -fields volume,vserver -dsid" command, and then take that volume offline by running the "volume offline" command. Delete the volume by running the "volume delete" command while it is offline.

Syslog Message

MetroCluster disaster recovery event requires deletion of the temporary destination volume (DSID: %llu) created by a recent volume move operation running on the partner cluster. Failure to delete the temporary destination volume might cause future switchback operations to fail.

Parameters

volume_dsid (LONGINT): Destination volume data set ID (DSID).

moveagent.cleanup.src

Severity

ERROR

Description

This message occurs when a volume move operation is interrupted by a disaster recovery event (such as switchover or switchback) in the MetroCluster(tm) configuration after the cutover phase has started but before the source volume is deleted. The source volume must be deleted.

Corrective Action

If necessary, identify which source volume must be deleted by running the "volume show -fields volume, vserver -dsid" command, and then take the volume offline by running the "volume offline" command. Delete the volume by running the "volume delete" command while it is offline.

Syslog Message

A MetroCluster disaster recovery event interrupted the volume move operation before the source volume was deleted. Delete the source volume (DSID: %llu). Failure to delete the source volume might cause future switchback operations to fail.

Parameters

volume_dsid (LONGINT): Source volume data set ID (DSID).

moveagent.commitdst events

moveagent.commitdst.fail

Severity

ALERT

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination but fails to update the appropriate information on the destination. The system continues to retry the operation until it is successful. In the time between the failure and a successful retry, there might be disruption to client traffic associated with the volume being moved.

Corrective Action

Monitor the volume move job. If the problem persists, contact NetApp technical support

Syslog Message

Unable to finish the volume move operation for DSID %llu. Failed to commit the destination volume.

Parameters

volume_dsid (LONGINT): Destination volume Data Set ID (DSID).

moveagent.commitsrc events

moveagent.commitsrc.fail

Severity

ALERT

Description

This message occurs when an active volume move operation cannot commit the source volume. The system continues to retry the operation until it is successful. In the time between the failure and a successful retry, there might be disruption to client traffic associated with the volume being moved.

Corrective Action

Monitor the volume move job. If the problem persists, contact NetApp technical support

Syslog Message

Unable to finish the volume move operation for DSID %llu. Failed to commit the source volume.

Parameters

volume_dsid (LONGINT): Source volume Data Set ID (DSID).

moveagent.cutovercomp events

moveagent.cutovercomp.fail

Severity

ALERT

Description

This message occurs when a 'volume move' operation cannot complete cutover. The system continues to retry the operation until it is successful.

Corrective Action

Monitor the volume move job. If the problem persists, contact NetApp technical support

Syslog Message

Unable to finish the volume move operation for DSID %llu. Failed to complete cutover.

Parameters

volume_dsid (LONGINT): Destination volume Data Set ID (DSID).

moveagent.detected events

moveagent.detected.on.MCC.SO

Deprecated

This EMS is no longer needed as the issue that caused the volume inconsistency after an MCC switchback operation is fixed.

Severity

ERROR

Description

This message occurs when a volume move operation is interrupted by a disaster after the critical cutover phase has started but before the source volume is deleted. It might lead to volume inconsistencies and data access disruption on the disaster site when a MetroCluster® switchback operation is performed.

Corrective Action

To avoid data access disruption after MetroCluster switchback, some additional cleanup steps might need to be taken on the disaster site. Please run the commands 'debug vreport show' and 'debug vreport fix' on the disaster site to perform the cleanup. Contact NetApp technical support for further assistance if needed.

Syslog Message

A disaster event interrupted the volume move operation in the critical cutover phase before the source volume %s was deleted.

Parameters

volname (STRING): Source volume name.

moveagent.dst events

moveagent.dst.partial.commit

Severity

ALERT

Description

This message occurs when the move agent detects that the attributes of the destination volume are partially updated during the commit destination phase. In such scenarios, the volume move operation may not be able to complete successfully and the client access will be blocked during this whole period.

Corrective Action

Monitor the volume move job using the 'volume move show' command. If the problem presists, please contact NetApp technical support for recovery procedures.

Syslog Message

Unable to finish the volume move operation as the destination volume with dsid:%llu and uuid:%s is partially committed.

Parameters

volume_dsid (LONGINT): The destination volume data set identifier (dsid)
volume_uuid (STRING): The destination volume uuid.

moveagent.exceed events

moveagent.exceed.window

Severity

NOTICE

Description

This message occurs when the time window for a volume move operation exceeds the specified limit.

Corrective Action

(None).

Syslog Message

Cutover window was exceeded for volume with source DSID %llu in Vserver with ID %llu Total elapsed cutover time elapsed is %llums; cutover window is %llums. Time spent in committing the source volume is %llums and for destination cutover operations is %llums.

Parameters

volume (LONGINT): Volume data set ID(DSID).
vserver (LONGINT): Vserver ID where the move takes place.
total_cutover_time (LONGINT): Total cutover time elapsed.
cutover_window (LONGINT): Predetermined cutover window.
source_commit_time (LONGINT): Time for the source volume to be commited on disk.
destination_operation_latency (LONGINT): Time for commit destination and swap VLDB.

moveagent.outofmemory events

moveagent.outofmemory

Severity

NOTICE

Description

This message occurs when the move agent fails to allocate memory for the move object. The system continues to retry the operation until it is successful.

Corrective Action

If the problem persists, it indicates a system-level problem. Contact NetApp technical support.

Syslog Message

Unable to finish the volume move operation for DSID %llu. Failed to allocate sufficient memory.

Parameters

volume_dsid (LONGINT): Source or destination volume data set ID (DSID).

moveagent.phase events

moveagent.phase.queryerr

Severity

NOTICE

Description

This message occurs when an active volume move operation cannot access the volume move phase information.

Corrective Action

Monitor the currently running volume move job using the 'volume move show' clustered Data ONTAP command. If the volume move completes successfully, no further action is necessary. If the volume move

fails, you can retry the volume move or contact NetApp technical support for assistance.

Syslog Message

Cannot determine the vol move phase information for volume with DSID %llu.

Parameters

volume_dsid (LONGINT): Destination volume data set identifier(DSID).

moveagent.swapvldb events

moveagent.swapvldb.fail

Severity

ALERT

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination but fails to update the volume location database (VLDB). Failing to update the VLDB causes continued attempts to access the original location instead of the new location. The system continues to retry the operation until it is successful. In the time between the failure and a successful retry, there might be disruption to data access on the volume being moved.

Corrective Action

Monitor the volume move job for 30 minutes by running the "volume move show -vserver <vservername> -volume <volName%gt;" command. If the cutover phase continues to fail while trying to swap VLDB records, contact NetApp technical support.

Syslog Message

Unable to finish the volume move operation for DSID %llu. Failed to complete the swap VLDB operation successfully.

Parameters

volume_dsid (LONGINT): Destination volume data set ID (DSID).

moveagent.swapvldb.sync.fail

Severity

ERROR

Description

This message occurs when a 'volume move' operation finishes moving the volume to the destination but fails to replicate swapping of volume location database (VLDB) to the MetroCluster(tm) sync destination.

Corrective Action

Monitor the volume move job. If the problem persists, contact NetApp technical support

Syslog Message

Unable to finish replicating swap VLDB operation to MetroCluster(tm) destination for the volume move operation for DSID %llu.

Parameters

volume_dsid (LONGINT): Destination volume Data Set ID (DSID).

moveagent.switchback events

moveagent.switchback.veto

Severity

INFORMATIONAL

Description

This message occurs when the volume move operation vetoes a MetroCluster(tm) switchback because the operations are mutually exclusive.

Corrective Action

Reissue the "metrocluster switchback" command to initiate the MetroCluster switchback after the volume move operation is complete. Or use the "volume move abort" command to abort the volume move operation. Monitor the currently running volume move operation by using the "volume move show" command.

Syslog Message

The volume move operation in progress prevents MetroCluster switchback. Monitor the currently running volume move operation by using the "volume move show" command.

Parameters

(None).

moveagent.switchover events

moveagent.switchover.veto

Severity

INFORMATIONAL

Description

This message occurs when the volume move operation vetoes a MetroCluster(tm) switchover because the operations are mutually exclusive.

Corrective Action

Reissue the "metrocluster switchover" command to initiate the MetroCluster switchover after the volume move operation is complete. Or use the "-override-vetoes true" option to abort the volume move. Administrators can also abort running volume move operations by using the "volume move abort" command. Monitor the currently running volume move operation by using the "volume move show" command.

Syslog Message

The volume move operation in progress prevents MetroCluster switchover. Monitor the currently running volume move operation by using the "volume move show" command.

Parameters

(None).

mpt events

mpt.action events

mpt.action.reset.bus

Severity

NOTICE

Description

This message occurs when the system bus is reset in the message processing technology (MPT) adapter driver.

Corrective Action

(None).

Syslog Message

Bus reset on path %s for device status %s.

Parameters

path (STRING): Device path.
msg (STRING): Detail about device status.

mpt.action.reset.dev

Severity

NOTICE

Description

This message occurs when the system device is reset in the message processing technology (MPT) adapter driver.

Corrective Action

(None).

Syslog Message

Device reset on path %s for device status %s.

Parameters

path (STRING): Device path.
msg (STRING): Detail about device status.

mpt.bus events

mpt.bus.reg

Severity

NOTICE

Description

This message occurs when the message processing technology (MPT) adapter driver registration fails.

Corrective Action

(None).

Syslog Message

%s : Bus registration failed.

Parameters

mpt (STRING): MPT device name for which registration failed.

mpt.busreg events

mpt.busreg.phydisk.failed

Severity

ERROR

Description

This message occurs when physical disk bus registration fails in the message processing technology (MPT) adapter driver.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

%s : Physical disk bus registration failed.

Parameters

mpt (STRING): MPT device name on the path that failed.

mpt.path events

mpt.path.failure

Severity

ERROR

Description

This message occurs when the system cannot allocate a path in the message processing technology (MPT) adapter driver.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

%s : Unable to allocate path.

Parameters

    mpt (STRING): MPT device name on the path that failed.

mpt.phydisk events

mpt.phydisk.path.failed

Severity

    ERROR

Description

    This message occurs when the system cannot allocate a physical disk path in the message processing technology (MPT) adapter driver.

Corrective Action

    Check whether the device is connected correctly.

Syslog Message

    %s : Unable to allocate physical disk path.

Parameters

    mpt (STRING): MPT device name on the path that failed.

mpt.tmf events

mpt.tmf.req

Severity

    NOTICE

Description

    This message occurs when the system cannot allocate a SCSI Task Management Function (TMF) request in the message processing technology (MPT)adapter driver.

Corrective Action

    (None).

Syslog Message

    Unable to allocate dedicated TMF request for device %s.

Parameters

    mpt (STRING): MPT device name.

msata events

msata.boot events

msata.boot.device.failed

Severity

ERROR

Description

This message occurs when Data ONTAP® module that is responsible for monitoring the health of the mSATA device determines that the associated boot device is reporting a failure condition.

Corrective Action

Replace the device.

Syslog Message

Boot device %s has become read-only.

Parameters

device (STRING): Name of the device.

msata.boot.device.pfa

Severity

ERROR

Description

This message occurs when Data ONTAP® determines that failure is forthcoming for the associated mSATA boot device.

Corrective Action

Replace the device.

Syslog Message

Failure predicted for boot device %s.

Parameters

device (STRING): Name of the device.

msata.unable events

msata.unable.to.monitor

Severity

ERROR

Description

This message occurs when Data ONTAP® module that is responsible for monitoring the health of the

mSATA device cannot extract health information from the associated device.

Corrective Action

Replace the device. If the problem persists, contact NetApp technical support.

Syslog Message

Data ONTAP could not monitor device %s.

Parameters

device (STRING): Name of the device.

msrespmon events

multi events

multi.dsk events

multi.dsk.cksum.err

Severity

EMERGENCY

Description

This message occurs when multiple errors are detected during checksum verification, and the adapter is not taken offline or the "disk.offline_adapter.enable" option is disabled.

Corrective Action

Contact Contact NetApp technical support. for assistance with troubleshooting the reason for the write verification errors.

Syslog Message

Checksum verification failures reported by multiple disks connected to adapter %s.

Parameters

adapterName (STRING): Name of the adapter.

mw events

mw.hir events

mw.HiR.maxref.notify

Severity

NOTICE

Description

This message occurs when extent reference has reached a pre-determined threshold value. This is a temporary notification till we support OVERFLOW file - where we can support infinite reference.

Corrective Action

Limit the # of clone/snapshot operation.

Syslog Message

This message occurs when extent reference has reached a pre-determined threshold value. Limit the # of clone/snapshot operation till we support OVERFLOW file in metawafl. Aggr: %s%s%s EID: 0x%llx

Parameters

name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
eid (LONGINT): EID on which maxref is reached.

mw.iron events

mw.iron.mount.idlog.purge

Severity

INFORMATIONAL

Description

This message is used to notify idlog purge at mount after 7 consecutive unsuccessful iron runs.

Corrective Action

(None).

Syslog Message

Volume[%s] : Wafliron mount performance may be significantly impacted, because idlog purge is triggered after[%d] unsuccessful iron runs.

Parameters

vol (STRING): Name of the volume.
generation (INT): Iron generation number.

nameserv events

nameserv.conf events

nameserv.conf.limit.reached

Severity

ERROR

Description

This message occurs when a UNIX user or group name exceeds 64 characters. This check is performed on the last node upgrade from Data ONTAP® 8.2 to 8.3. The names that exceed this limit will not get resolved in Data ONTAP 8.3.

Corrective Action

Replace the name with a name that is no longer than 64 characters.

Syslog Message

%s exceeds 64 characters for Vserver %s and configuration %s.

Parameters

name (STRING): Name of the user or group that exceeded 64 characters.
vserver_name (STRING): Name of the Vserver.
ns_config_name (STRING): Name of the name service configuration (unix-user or unix-group).

nameserv.config events

nameserv.config.write.failed

Severity

ERROR

Description

This message occurs when a file write for name service configuration fails.

Corrective Action

Autocorrection is triggered for failing Vserver, configuration and node. Ensure that the root volume File System(FS) is available and has enough space and check the status using "vserver services name-service file-version show". Contact technical support if the problem persists.

Syslog Message

%s configuration failed for Vserver %s on node %s.

Parameters

vserver_name (STRING): Name of the Vserver.
ns_config_name (STRING): Name of the name service configuration.
node_name (STRING): Name of the node.

nameserv.ddns events

nameserv.ddns.bulk.delete

Severity

ALERT

Description

This message occurs when a request to delete the fully qualified domain name (FQDN) of all or some of the logical interfaces of a Vserver from the DNS server fails, resulting in stale records on the DNS server. This can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Use the (privilege: advanced) "vserver services name-service dns dynamic-update record delete" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS delete operation has failed for all or some of the logical interfaces having FQDN "%s" for Vserver "%s".

Parameters

FQDN (STRING): FQDN for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.ddns.bulk.failure

Severity

ALERT

Description

This message occurs when a dynamic request to update the fully qualified domain name (FQDN) of all or some of the logical interfaces of a Vserver in the DNS server fails after repeated retries, resulting in stale records on the DNS server. This can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Use the (privilege: advanced) "vserver services name-service dns dynamic-update record" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS %s operation has failed for all or some of the logical interfaces having FQDN "%s" for Vserver "%s".

Parameters

Operation (STRING): Type of operation.
FQDN (STRING): FQDN for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.ddns.bulk.warning

Severity

ERROR

Description

This message occurs when a dynamic request to update the fully qualified domain name (FQDN) of all or some of the logical interfaces of a Vserver on the DNS server fails, resulting in stale records on the DNS server. This can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Data ONTAP® retries the failed dynamic DNS update operation. Check the DNS record to ensure that it is up to date. Use the (privilege: advanced) "vserver services name-service dns dynamic-update record" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS %s operation has failed for all or some of the logical interfaces having FQDN "%s" for Vserver "%s".

Parameters

Operation (STRING): Type of operation.
FQDN (STRING): FQDN for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.ddns.lif.delete

Severity

ALERT

Description

This message occurs when an attempt to delete a fully qualified domain name (FQDN) from the DNS server fails, resulting in a stale record on the server. The FQDN belongs to the logical interface (LIF) of the given Vserver. Retaining the stale record can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Use the (privilege: advanced) "vserver services name-service dns dynamic-update record delete" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS delete operation of FQDN "%s" failed for LIF with IP %s on Vserver "%s".

Parameters

FQDN (STRING): FQDN for which the operation failed.
IP (STRING): IP address for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.ddns.lif.failure

Severity

ALERT

Description

This message occurs when an attempt to update a fully qualified domain name (FQDN) on the DNS server fails after repeated retries, resulting in a stale record on the server. The FQDN belongs to the logical interface (LIF) of the given Vserver. Retaining the stale record can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Use the (privilege: advanced) "vserver services name-service dns dynamic-update record" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS %s operation of FQDN "%s" failed for LIF with IP %s on Vserver "%s".

Parameters

Operation (STRING): Type of operation.
FQDN (STRING): FQDN for which the operation failed.
IP (STRING): IP address for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.ddns.lif.warning

Severity

ERROR

Description

This message occurs when an attempt to update a fully qualified domain name (FQDN) on the DNS server fails, resulting in a stale record on the server. The FQDN belongs to the logical interface (LIF) of the given Vserver. Retaining the stale record can lead to DNS lookup failures, resulting in mount problems.

Corrective Action

Data ONTAP® retries the failed dynamic DNS update operation. Check the DNS record to ensure that it is up to date. Use the (privilege: advanced) "vserver services name-service dns dynamic-update record" command to attempt a manual update of the record for the LIF. If this fails, check documentation for dynamic DNS updates to correct the failure or update the record directly on the DNS server.

Syslog Message

DDNS %s operation of FQDN "%s" failed for LIF with IP %s on Vserver "%s".

Parameters

Operation (STRING): Type of operation.
FQDN (STRING): FQDN for which the operation failed.
IP (STRING): IP address for which the operation failed.
vserver_name (STRING): Name of the Vserver.

nameserv.netgrpbyhost events

nameserv.netgrpbyhost.failed

Severity

ERROR

Description

This message occurs when netgroup is configured but the netgroup byhost database is not generated during an upgrade operation. Absence of the netgroup byhost database might impact performance or access during subsequent netgroup-related data access attempts.

Corrective Action

Use the "vserver services name-service netgroup load" command to reload the netgroup configuration file. Use the (privilege: advanced) "vserver services name-service netgroup status" command to verify that the netgroup file was successfully loaded and the netgroup byhost database successfully generated. If there are any syntax errors after the load operation, fix them and reload the netgroup file.

Syslog Message

Netgroup byhost database failed to generate for Vserver %s on node %s with error %s.

Parameters

vserver_name (STRING): Name of the Vserver.
node_name (STRING): Name of the node.
error_string (STRING): Error encountered during creation of netgroup byhost.

nand events

nand.predict events

nand.predict.fail

Severity

ALERT

Description

This message occurs when Data ONTAP® determines that failure is forthcoming for the associated flash device on the NVRAM module.

Corrective Action

Replace the device to prevent future failures. Contact technical support for assistance.

Syslog Message

NVRAM destage Failure predicted for device: %s.

Parameters

device (STRING): Name of the device.

nand.unable events

nand.unable.to.monitor

Severity

ALERT

Description

This message occurs when Data ONTAP® module that is responsible for monitoring the health of the NVRAM device cannot extract health information. This failure might indicate the NVRAM device is not operating properly.

Corrective Action

Use the "system environment sensors show" command to verify the device's status. If the failure still exists, contact technical support for assistance.

Syslog Message

Unable to monitor NVRAM device: %s.

Parameters

device (STRING): Name of the device.

nblade events

nblade.aclcompliance events

Nblade.AclCompliance

Severity

ALERT

Description

This message occurs when the nfs "-v4-acl-compliance" option is enabled but not functional because the SnapMirror Synchronous secondary cluster or FlexCache origin cluster is running an ONTAP version older than 9.14.1

Corrective Action

Upgrade the secondary cluster to ONTAP 9.14.1 or later to use the ACL compliance feature or disable the "-v4-acl-compliance" option by running the "vserver nfs modify "-v4-acl-compliance disabled" command.

Syslog Message

NFS "-v4-acl-compliance" option is enabled but not functional because the SnapMirror Synchronous secondary cluster or FlexCache origin cluster is running an ONTAP version older than 9.14.1

Parameters

(None).

nblade.callbacktimedout events

Nblade.CallbackTimedOut

Severity

ERROR

Description

This message occurs when the Nblade is unable to successfully complete a PORTMAP/SM call to the client within 1 seconds. The PORTMAP/SM calls are done as part of the per-aggregate lock reclaim process after a Dblade reboot. If a large number of such calls fail for a particular aggregate, then it delays the completion of the lock reclaim process for that aggregate. That delay prevents the aggregate from granting new locks to NFS clients.

Corrective Action

Check if the RPC program number displayed above with the correct program version is running on the client and if not start it. You can use "rpcinfo -p" on the client to check that. It is also possible that the client is unreachable due to firewall/network connectivity issues.

Syslog Message

SM NOTIFY: Vserver %d, Vif %d: %s program (Program number:%d Program version:%d) on client %s is not responding.

Parameters

virtualServer (INT): Identifier for the Vserver associated with this operation.
lifId (INT): Identifier for the logical interface associated with this operation.
program (STRING): Client program not responding.
programNum (INT): RPC Program Number.
programVersion (INT): RPC Program Version.
remoteIpAddress (STRING): IP address of the client machine.

nblade.cifs events

Nblade.cifs.budgetAllocFailure

Severity

ERROR

Description

This message occurs when there is a budget allocation failure for a CIFS subsystem because other CIFS subsystems are consuming too much memory. The three displayed CIFS subsystem have consumed most of the memory.

Corrective Action

Consider distributing the CIFS load by moving data LIFs, adding data LIFs, and redirecting workloads, or by shutting down nonessential workloads to alleviate the memory pressure. If the problem persists after addressing issues on the network or the client, contact NetApp technical support.

Syslog Message

Memory Allocation failed for %s. The CIFS subsystem on this node has exceeded its allotment of %llu bytes of node memory. CIFS subsystems that have consumed the most memory are %s.

Parameters

budgetname (STRING): Name of the CIFS subsystem for which memory allocation failed.
TotalCifsBudget (LONGINT): Amount of memory available to the CIFS subsystem.
topConsumers (STRING): CIFS subsystem that have consumed the most memory, and the amount of memory consumed.

Nblade.cifs.logon.audit.fail

Severity

ERROR

Description

This message occurs when a CIFS logon fails when guaranteed audit is enabled and audit log generation fails due to no space remaining in either destination volumes or staging volumes.

Corrective Action

Use the command "event log show -messagename adt.service.block" to check for destination volume space unavailability. If the message entry exists, use the command "event log show -messagename adt.service.block -fields action" and follow the corrective action. If the message entry does not exist, then staging volumes are full and no corrective action is necessary. The audit process self-heals and normal auditing continues in 10 seconds after audit logging cleanup occurs.

Syslog Message

CIFS logon failed due to audit log generation failure for the vserver %u.

Parameters

vsId (INT): Id of the vserver, on which this event occurred.

nblade.cifsencsessaccessdenied events

Nblade.cifsEncSessAccessDenied

Severity

ERROR

Description

This message occurs when a client not capable of SMB encryption tries to establish a CIFS session that requires SMB encryption.

Corrective Action

Either ensure that the client is capable of SMB encryption or disable SMB encryption on the Vserver.

Syslog Message

Client (IP: %s, Vserver: %d) could not establish a CIFS session because SMB encryption is required.

Parameters

IpAddress (STRING): IP address of the client attempting to establish a CIFS session.
vserverId (INT): Identifier of the Vserver associated with this operation.

nblade.cifsencshraccessdenied events

Nblade.cifsEncShrAccessDenied

Severity

ERROR

Description

This message occurs when a client not capable of SMB encryption tries to connect to a CIFS share that requires SMB encryption.

Corrective Action

Either ensure that the client is capable of SMB encryption or disable SMB encryption on the CIFS share.

Syslog Message

Client (IP: %s, Vserver: %d) could not connect to CIFS share "%s" because SMB encryption is required.

Parameters

IpAddress (STRING): IP address of the client from which Share Connect requests are being attempted.
vserverId (INT): Identifier of the Vserver associated with this operation.
shareName (STRING): Name of the share to which the client is connecting.

nblade.cifsetcdactionfailed events

Nblade.cifsEtcdActionFailed

Severity
ERROR

Description
This message occurs when the DMAP container encounters an error processing an etcd request, such as a connection failure.

Corrective Action
Check the network connectivity of the etcd server to the ONNIX pod, and correct any networking faults. Scan the DMAP and etcd logs for additional information.

Syslog Message
Received an etcd failure event, Message is %s.

Parameters
pMessage (STRING): Description of the SMB configuration update failure.

nblade.cifsetcdmaxtxnlimit events

Nblade.cifsEtcdMaxTxnLimit

Severity
ERROR

Description
This message occurs when the number of Access Control Entries (ACE) present in an MSRPC request for updating share permissions exceeds the supported maximum etcd limit of 1,022 entries.

Corrective Action
Retry the operation with less than the maximum supported number of ACEs in the MSRPC request.

Syslog Message
Received an etcd failure event. Message is %s.

Parameters
pMessage (STRING): Description of the error.

nblade.cifslongrunpattmatch events

Nblade.CifsLongRunPattMatch

Severity
ERROR

Description

This message occurs when a CIFS query directory command that includes wildcard characters exceeds the reporting time threshold for completion. Pattern-matching searches on strings including wildcard characters consume excessive CPU resources.

Corrective Action

Check the Windows client that is requesting searches containing wildcard characters. For assistance, contact NetApp technical support.

Syslog Message

Detected a long running CIFS pattern matching operation. SMB dialect: %s Allowed pattern matching threshold (ms): %llu Total pattern matching time taken(ms): %llu Client IP address: %s Target Vserver name: %s Target Vserver ID: %d Wildcard Pattern: %s Share name: %s Directory Path: %s

Parameters

dialect (STRING): Negotiated SMB dialect.
allowedThresholdInMs (LONGINT): Pattern-matching threshold value.
totalTimeTakenInMs (LONGINT): Total time taken for pattern matching.
clientIpAddress (STRING): IP address of the client machine.
vservername (STRING): Identifier for the Vserver name associated with this operation.
vserverId (INT): Identifier for the Vserver associated with this operation.
pattern (STRING): Wildcard pattern sent.
shareName (STRING): Target share name.
dirPath (STRING): Target directory path.

nblade.cifsmanyauths events

Nblade.cifsManyAuths

Severity

ERROR

Description

This message occurs when many authentication negotiations occur simultaneously. There are 256 new session requests from this client that are not yet complete.

Corrective Action

Investigate why the client is creating 256 or more new connection requests. It might be necessary to contact the vendor of the client or of the application in order to determine why this is occuring.

Syslog Message

Many simultaneous new CIFS connections are occurring on Vserver ID %u from IP address %s object type is %s with UUID %s.

Parameters

vsId (INT): ID of the Vserver on which this event occurred.
remoteIpAddress (STRING): IP address of the client machine.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the Vserver.

nblade.cifsmaxopensamefile events

Nblade.cifsMaxOpenSameFile

Severity

ERROR

Description

This message occurs when the number of times a user tries to open a file over a TCP connection is exceeded. This request and any further requests to open the same file by the user are denied until some open instances of the file are closed. This typically indicates abnormal application behavior.

Corrective Action

Inspect the application running on the client using this TCP connection. The client might be operating incorrectly due to the application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set using the (privilege: advanced) "cifs option modify -max-opens-same-file-per-tree" command.

Syslog Message

Received too many open file requests for the same file by one user on a connection: clientIP:port %s:%d, file "%s" on share "%s", vserver: "%s". Object type is: %s with UUID: %s.

Parameters

IpAddress (STRING): IP address of the client from which open requests are denied.
port (INT): Port number of the client from which the connection has been established.
filePath (STRING): Path of the file that cannot be opened.
shareName (STRING): Name of the share that holds the file.
vserverName (STRING): Vserver associated with this operation.
object_type (STRING): Type of resource object.
object_uuid (STRING): UUID of the resource object.

nblade.cifsmaxopensamefilenotice events

Nblade.cifsMaxOpenSameFileNotice

Severity

NOTICE

Description

This message occurs when the number of open instances of a particular file under a CIFS tree nears the configuration limit. Upon reaching this limit, any further requests to open the same file by the user are denied until some open instances of the file are closed. This typically indicates abnormal application behavior.

Corrective Action

Inspect the application running on the client using this TCP connection. The client might be operating incorrectly due to the application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set by using the (privilege: advanced) "cifs option modify -max-opens-same-file-per-tree" command.

Syslog Message

Received %d open file requests, nearing the configured limit of %d, for the same file by one user on a connection: clientIP:port %s:%d, file: "%s" on share: "%s", vserver: "%s".

Parameters

currentCount (INT): Current count of the open instances on the file.
maxValue (INT): Maximum allowed open instances on a file.
IpAddress (STRING): IP address of the client requesting the file open.
port (INT): Port number of the client from which the connection has been established.
filePath (STRING): Path of the file being opened.
shareName (STRING): Name of the share that holds the file.
vserverName (STRING): Vserver associated with this operation.

nblade.cifsmaxsessperusrconn events

Nblade.cifsMaxSessPerUsrConn

Severity

ERROR

Description

This message occurs when the number of sessions allowed per user over a TCP connection is exceeded. This request and any further session establishment requests are denied until some sessions are released. This is typically caused by a faulty client or application.

Corrective Action

Inspect all applications running on the client, and terminate any that are not operating properly. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set using the (privilege: advanced) "cifs option modify -max-same-user-sessions -per-connection" command.

Syslog Message

Received too many session requests from the same user on one TCP connection: clientIP:port %s:%d, user "%s", vserver: "%s". Object type is: %s with UUID: %s.

Parameters

IpAddress (STRING): IP address of the client requesting a session.
port (INT): Port number of the client from which the TCP connection has been established.
userName (STRING): User that has exceeded session requests.
vserverName (STRING): Vserver associated with this operation.
object_type (STRING): Type of resource object.
object_uuid (STRING): UUID of the resource object.

nblade.cifsmaxsessperusrconnnotice events

Nblade.cifsMaxSessPerUsrConnNotice

Severity

NOTICE

Description

This message occurs when the number of sessions allowed per user over a TCP connection nears the configured limit. Upon reaching this limit, any further session establishment requests are denied until some sessions are released. This is typically caused by a faulty client or application.

Corrective Action

Inspect all applications running on the client, and terminate any that are not operating properly. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set by using the (privilege: advanced) "cifs option modify -max-same-user -sessions-per-connection" command.

Syslog Message

Received %d session requests, nearing the configured limit of %d, from the same user on one TCP connection: clientIP:port %s:%d, user: "%s", vserver: "%s".

Parameters

currentCount (INT): Current count of the sessions.
maxValue (INT): Maximum allowed sessions per user over a TCP connection.
IpAddress (STRING): IP address of the client requesting a session.
port (INT): Port number of the client from which the TCP connection has been established.
userName (STRING): User that is nearing the session requests limit.
vserverName (STRING): Vserver associated with this operation.

nblade.cifsmaxwatchespertree events

Nblade.cifsMaxWatchesPerTree

Severity

ERROR

Description

This message occurs when the total number of directory watch (Change Notify) requests exceed the per-tree limit. This request and any further directory watch requests are denied. This typically indicates abnormal client behavior.

Corrective Action

Inspect the application using the connection and also monitor the other applications on the client. The client might be operating incorrectly due to a faulty application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which can be set using the (privilege: advanced) "cifs option modify -max-watches-set-per-tree" command.

Syslog Message

Received too many Change Notify requests on one tree: clientIP:port %s:%d, directory "%s" on share "%s", vserver: "%s".

Parameters

IpAddress (STRING): IP address of the client requesting Change Notify functionality.
port (INT): Port number of the client from which the TCP connection has been established.
dirPath (STRING): Path of the directory on which Change Notify is requested.
shareName (STRING): Name of the share that holds the directory.
vserverName (STRING): Vserver associated with this operation.

nblade.cifsmaxwatchespertreenotice events

Nblade.cifsMaxWatchesPerTreeNotice

Severity

NOTICE

Description

This message occurs when the total number of directory watch (Change Notify) requests nears the configured limit. Upon reaching this limit, any further directory watch requests are denied. This typically indicates abnormal client behavior.

Corrective Action

Inspect the application using the connection, and also monitor the other applications on the client. The client might be operating incorrectly due to a faulty application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which can be set by using the (privilege: advanced) "cifs option modify -max-watches-set-per-tree" command.

Syslog Message

Received %d Change Notify requests, nearing the configured limit of %d, on one tree: clientIP:port %s:%d, directory: "%s" on share: "%s", vserver: "%s".

Parameters

currentCount (INT): Current count of the Change Notify on the tree.
maxValue (INT): Maximum allowed Change Notify on the tree.
IpAddress (STRING): IP address of the client requesting Change Notify functionality.
port (INT): Port number of the client from which the TCP connection has been established.
dirPath (STRING): Path of the directory on which Change Notify is requested.
shareName (STRING): Name of the share that holds the directory.
vserverName (STRING): Vserver associated with this operation.

nblade.cifsmemexceeded events

Nblade.cifsMemExceeded

Severity

ERROR

Description

This message occurs when the CIFS subsystem, which operates all the CIFS servers exposed through a given node, has requested more memory than it is allowed in this node. The subsystem is restricted to a percentage of total memory in the node, so the node itself need not be low on memory for this to occur. CIFS memory is not allocated in advance and so CIFS memory requests compete with other system processes. This message might not appear if a memory request from CIFS cannot be honored because the node is already low on memory. This might result in CIFS client operation failures.

Corrective Action

Compare the number of memory allocation failures with the previous occurence of this event to understand the load on the system. Further analyze the memory allocated to the CIFS subsystem on this node by viewing the nblade_cifs object instance for this node through the "statistics show" interface. Based on that data, consider distributing CIFS load by moving data LIFs, adding data LIFs, and redirecting workloads, or

by shutting down non-essential workloads to alleviate the memory pressure.

Syslog Message

The CIFS subsystem on this node has exceeded its allotment of %llu bytes of node memory with currently %llu memory allocation failures since boot time. This might result in unexpected CIFS application failures.

Parameters

availableMemoryInBytes (LONGINT): Amount of memory available to the CIFS subsystem.
memAllocFailures (LONGINT): Number of memory allocation failures in the CIFS subsystem since boot time.

nblade.cifsnbnameconflict events

Nblade.cifsNbNameConflict

Severity

ERROR

Description

This message occurs when the NetBIOS Name Service receives a negative response from a remote machine for a name registration request. This is typically caused by a conflict in the NetBIOS name or an alias. As a result, clients might not be able to access data or connect to the right data-serving node in the cluster.

Corrective Action

1. If applicable, delete the duplicate NetBIOS alias by using the "vserver cifs delete -aliases alias -vserver vserver" command. Alternatively, rename a NetBIOS alias by deleting the duplicate name and adding an alias with a new name by using the "vserver cifs create -aliases alias -vserver vserver" command. 2. If there are no aliases configured and there is a conflict in the NetBIOS name, then rename the CIFS server by using the "vserver cifs delete -vserver vserver" and "vserver cifs create -cifs-server netbiosname" commands. Note that deleting a CIFS server can cause data to be inaccessible. 3. Remove or rename the NetBIOS name on the remote machine.

Syslog Message

The NetBIOS Name Service received a negative name registration response. The name %s is owned by a remote machine. The IP address being registered is %s. Object type is: %s with UUID: %s.

Parameters

nbName (STRING): NetBIOS name or alias being registered by the NetBIOS Name Service.
IpAddress (STRING): IP address being registered by the NetBIOS Name Service.
object_type (STRING): Type of resource object.
object_uuid (STRING): UUID of the resource object.

nblade.cifsnonaesnibytesproc events

Nblade.cifsNonAesNiBytesProc

Severity

ALERT

Description

This message occurs when a system with CPUs that do not support the AES-NI instruction set is performing SMB3 encryption or signing of a large amount of data. These cryptographic operations can degrade performance severely for both SMB and other system operations.

Corrective Action

Avoid encrypted or signed SMB3 traffic on systems that do not support the AES-NI instruction set.

Syslog Message

Excessive SMB3 cryptographic processing load (AES-NI instruction set is not supported).

Parameters

(None).

nblade.cifsnonunicoderequest events

Nblade.cifsNonUnicodeRequest

Severity

ERROR

Description

This message occurs when a client attempts to send a non-unicode request to a Vserver. The request is rejected.

Corrective Action

Check the client to verify that it supports unicode characters and negotiates unicode support with the Vserver.

Syslog Message

Vserver ID %u rejected non-unicode request from client IP: %s.

Parameters

vserverId (INT): Identifier for the Vserver that received the non-unicode request.
clientIp (STRING): IP address of the client sending the non-unicode request.

nblade.cifsnoprivshare events

Nblade.cifsNoPrivShare

Severity

EMERGENCY

Description

This message occurs when a client attempts to connect to a nonexistent ONTAP_ADMIN$ share.

Corrective Action

Ensure that the vscan is enabled for the mentioned Vserver ID. Enabling vscan on a Vserver causes the ONTAP_ADMIN$ share to be created for the Vserver automatically.

Syslog Message

Vserver ID: %d, user name: %s, client ip: %s, Object type is: %s with UUID: %s.

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.
userName (STRING): User name of the client attemping to access the nonexistent ONTAP_ADMIN$ share.
clientIp (STRING): IP address of the client attemping to access the nonexistent ONTAP_ADMIN$ share.
object_type (STRING): Type of resource object.
object_uuid (STRING): UUID of the resource object.

nblade.cifsoperationtimedout events

Nblade.CifsOperationTimedOut

Severity

ERROR

Description

This message occurs when a CIFS operation times out because it could not be processed completely within 40 seconds.

Corrective Action

Check the QoS policy configuration for the target volume. If there are no QoS policies set, check the load on the target volume and check IP connectivity over the cluster interfaces between the two nodes. For further assistance, contact NetApp technical support and indicate that you need assistance with a potential internal cluster performance problem.

Syslog Message

Detected a timed out CIFS operation. SMB command for this operation: %s, Number of times this command was suspended: %llu, Number of times this command was restarted: %llu, Last CSM error during this operation: %s, Remote blade UUID: %s, Is QoS enabled: %s, Last nBlade error during this operation: %s, Client IP address: %s, Local IP address: %s, Target Vserver ID: %d, Target disk's DSID: %d, Target Vserver Name: %s, Target Volume Name: %s

Parameters

commandName (STRING): CIFS command for this operation.
suspensionCnt (LONGINT): Number of times this command has been suspended.
cmdRestartCnt (LONGINT): Number of times this command has been restarted.
lastCsmError (STRING): Last CSM error.
remoteBladeID (STRING): Remote blade ID for this CSM session.
isQosEnabled (STRING): Whether QoS is enabled.
lastSpinNpError (STRING): Last internal network component(nBlade) error.
clientIpAddress (STRING): IP address of the client machine.
localIpAddress (STRING): IP address of the local interface serving the protocol operation.
vserverId (INT): Identifier for the Vserver associated with this operation.
dsId (INT): Data set ID (DSID) of the target volume.
vserverName (STRING): Vserver name associated with this operation.
volumeName (STRING): Volume name corresponding to the DSID.

nblade.cifssametreepersess events

Nblade.cifsSameTreePerSess

Severity

ERROR

Description

This message occurs when the number of connections to the same share allowed per session is exceeded. This request and any further requests to establish another connection to that share are denied until some connections to the share are released. This typically indicates abnormal client behavior.

Corrective Action

Inspect the application using the connection and also monitor the other applications on the client. The client might be operating incorrectly due to a faulty application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set using (privilege: advanced) "cifs option modify -max-same-tree-connect-per-session" command.

Syslog Message

Received too many connection requests to the same share from one session: clientIP:port %s:%d, share "%s", user "%s", vserver "%s".

Parameters

IpAddress (STRING): IP address of the client from which multiple share connections have been attempted.
port (INT): Port number of the client from which the TCP connection has been established.
shareName (STRING): Name of the share to which the client is attempting connection.
userName (STRING): User that is attempting to connect to the share.
vserverName (STRING): Vserver associated with this operation.

nblade.cifssametreepersessnotice events

Nblade.cifsSameTreePerSessNotice

Severity

NOTICE

Description

This message occurs when the number of connections to the same share allowed per session nears the configured limit. Upon reaching this limit, any further requests to establish another connection to that share are denied until some connections to the share are released. This typically indicates abnormal client behavior.

Corrective Action

Inspect the application using the connection, and also monitor the other applications on the client. The client might be operating incorrectly due to a faulty application running on it. Rebooting the client might also be helpful. In some cases, clients are operating as expected but require a higher threshold, which you can set by using the (privilege: advanced) "cifs option modify -max-same-tree-connect-per-session" command.

Syslog Message

Received %d connection requests to the same share, nearing the configured limit of %d, from one session: clientIP:port %s:%d, share: "%s", user: "%s", vserver: "%s".

Parameters

    currentCount (INT): Current count of the connections on the session.

    maxValue (INT): Maximum allowed connections on the session.

    lpAddress (STRING): IP address of the client from which multiple share connections have been attempted.

    port (INT): Port number of the client from which the TCP connection has been established.

    shareName (STRING): Name of the share to which the client is attempting connection.

    userName (STRING): User that is attempting to connect to the share.

    vserverName (STRING): Vserver associated with this operation.

nblade.cifsshrconnectfailed events

Nblade.cifsShrConnectFailed

Severity

    ERROR

Description

    This message occurs when the network blade cannot connect to the path specified in the CIFS share.

Corrective Action

    Verify that the CIFS share path is valid and that the volume it belongs to is accessible.

Syslog Message

    Vserver name: %s, Vserver ID: %d, error description: %s, error code: %d, share name: %s, Windows user name: %s, UNIX user name: %s, server IP address: %s, client IP address: %s.

Parameters

    vserverName (STRING): Name for the Vserver associated with this operation.

    vserverId (INT): Identifier for the Vserver associated with this operation.

    errorDescription (STRING): Description of the error for the CIFS share connection failure.

    errorCode (INT): Error code that describes the reason for the CIFS share connection failure.

    shareName (STRING): Name of the share to which the connection attempt failed.

    domainWinUserName (STRING): Windows domain\user that is attempting to connect to the share.

    unixUserName (STRING): UNIX user name.

    serverIp (STRING): IP address of the server.

    clientIp (STRING): IP address of the client.

nblade.cifswitnessfonotify events

Nblade.cifsWitnessFONotify

Severity

    INFORMATIONAL

Description

    This message occurs when the Witness system has requested its CIFS clients to move their Continuously Available connections to the local node, due to a failure of the partner node.

Corrective Action

    (None).

The Witness service received a failure notification for the partner node. Notification of %d CIFS clients to move their Continuously Available connections to this node took %d milliseconds to complete.

Parameters

numNotificationsSent (INT): Number of clients notified.
timeTakenInMsecs (INT): Number of milleseconds taken to notify the clients.

nblade.css events

nblade.css.s3.AccessDenied

Severity

ERROR

Description

This message occurs when ONTAP® object-store-server denies access to a user.

Corrective Action

Verify that the user has permission to access the resource. Check access and bucket policy configurations using these commands: 'vserver object-store-server policy show', 'vserver object-store-server policy show-statements', 'vserver object-store-server bucket policy show'.

Syslog Message

Access is denied for user '%s' (Vserver %d), from client IP %s accessing resource '%s'.

Parameters

userName (STRING): Name of the user.
vserverId (INT): ID of the Vserver.
ipAddress (STRING): IP address of the client.
resource (STRING): Resource that the user is trying to access.

nblade.cvo events

nblade.cvo.remote.access

Severity

NOTICE

Description

This message occurs when a remote volume has been accessed in the Cloud Volumes ONTAP® environment.

Corrective Action

(None).

Syslog Message

Detected remote volume access (Vserver: %s) from client IP %s to LIF IP %s. Volume: %s.

Parameters

> **vserver** (STRING): Vserver name.
> **client_ipaddr** (STRING): IP address of the client.
> **lif_ipaddr** (STRING): IP address of the LIF.
> **volume** (STRING): Name of the volume.

nblade.dbladenoresponse events

Nblade.dBladeNoResponse.CIFS

Severity

> ERROR

Description

> This message occurs when a CIFS network data protocol operation times out because the requesting node cannot communicate with the data-serving node to complete the file operation. If this condition persists, there is likely a problem with the communication between the node that generated the event and the node where the data is located in the cluster.

Corrective Action

> Identify the node where the data is located by using the (privilege: advanced) "system node show" command and the UUID of the node. Verify network connectivity between the node that generated the event and the node where the data is located by using the "cluster ping-cluster" and "network ping" commands.

Syslog Message

> File operation timed out because there was no response from the data-serving node. Node UUID: %s, file operation protocol: %s.

Parameters

> **DBladeUuid** (STRING): Universally Unique Identifier (UUID) of the node where this operation is trying to access.
> **protocol** (STRING): Network data protocol that timed out while attempting the file operation.

Nblade.dBladeNoResponse.NFS

Severity

> ERROR

Description

> This message occurs when an NFS network data protocol operation times out because the requesting node cannot communicate with the data-serving node to complete the file operation. If this condition persists, there is likely to be a problem with the communication between the node that generated the event and the node where the data is located in the cluster.

Corrective Action

> Identify the node where the data is located by using the (privilege: advanced) "system node show" command and the UUID of the node. Verify network connectivity between the node that generated the event and the node where the data is located by using the "cluster ping-cluster" and the "network ping" commands.

Syslog Message

File operation timed out because there was no response from the data-serving node. Node UUID: %s, file operation protocol: %s, client IP address: %s, Opcode/Procedure: %s(%d).

Parameters

DBladeUuid (STRING): Universally unique identifier (UUID) of the node where this operation is trying to access.
protocol (STRING): Network data protocol that timed out while attempting the file operation.
clientip (STRING): IP address of client that attempted the file operation.
nfsOpcode (STRING): Opcode corresponding to file operation.
fileoperation (INT): File operation during which the timeout happened.

nblade.delayedoplockbreakack events

Nblade.delayedOplockBreakAck

Severity

NOTICE

Description

This message appears when the SMB clients experience delays in responding to oplock recalls.

Corrective Action

Check the client's network connection, evaluate processing load, and ensure no other factors are hindering prompt oplock recall responses.

Syslog Message

SMB Clients are showing delays in responding to oplock recalls, potentially due to network latency, heavy processing load, or other factors impacting responsiveness.

Parameters

(None).

nblade.didnotinitialize events

Nblade.DidNotInitialize

Severity

EMERGENCY

Description

The appliance's network process failed during initialization due to an internal error (likely there is not enough system memory available to start the necessary kernel threads). Because the network process is not running, file access to volumes on local aggregates is not currently available, and cluster and management virtual interfaces for this appliance are also not currently available.

Corrective Action

Initiate a storage failover (takeover) of any aggregates on this appliance, and perform a "sendhome" operation on these aggregates after this appliance is operational again. Also, verify that data virtual interfaces have properly migrated to another appliance. It is possible that a reboot or a reversion to a known compatible software version could also correct this problem.

Syslog Message

The Network Blade kernel module has failed during initialization.

Parameters

(None).

nblade.ecv events

nblade.ecv.not.ready

Severity

NOTICE

Description

This message occurs when ONTAP® software uses a default Effective Cluster Version (ECV) before the actual ECV has been conclusively determined. Some features might not work as expected until ONTAP can select the correct ECV.

Corrective Action

(None).

Syslog Message

Default ECV %s has been used. The ECV value '%d' does not reflect the cluster's true ECV status.

Parameters

ecv_variable_name (STRING): Name of the ECV value being used.
ecv_variable_value (INT): ECV value being used.

nblade.execsoverlimit events

nblade.execsOverLimit

Severity

NOTICE

Description

This message occurs when the number of active requests to a connection exceeds the allowed in-flight request threshold, which results in request throttling. Client connection performance might be degraded.

Corrective Action

Check the RPC slot setting on the client. Refer to TR-4067 "NFS Best Practice and Implementation Guide" for the recommended value and how to set it. For additional guidance, search the NetApp knowledgebase on the support web site for "nblade.execsOverLimit".

Syslog Message

The number of in-flight requests from client IP "[%s]:%d" to destination LIF "%s" (Vserver "%d") is greater than the maximum allowed (%d).

Parameters

clientIpAddress (STRING): IP address of the client.
clientPort (INT): Network port of the client.
lifIpAddress (STRING): IP address of the network interface (LIF).
vserverId (INT): ID of the Vserver.
execsLimit (INT): Maximum number of in-flight requests allowed per connection.

nblade.exportaccesschkfailed events

Nblade.exportAccessChkFailed

Severity

ERROR

Description

This message occurs when the network blade denies access to an exported share when a connection attempt violates an export policy.

Corrective Action

Ensure that the export policy rule for this SVM is defined properly by using the "export-policy rule show" command. If necessary, add a new rule to the policy that allows access to the share using the "export-policy rule create" command.

Syslog Message

Access denied due to a violation of an export policy. SVM ID: %d, error description: %s, share name: %s, client IP address: %s.

Parameters

vserverId (INT): Identifier for the storage virtual machine (SVM) associated with this operation.
errorDescription (STRING): Error that describes the export access check failure.
shareName (STRING): Name of the share that the user attempted to access.
clientIp (STRING): IP address of the client.

nblade.exportaccessindeterm events

Nblade.exportAccessIndeterm

Severity

ERROR

Description

This message occurs when client access cannot be evaluated because of an error while matching the client against export rules. Client access might be disrupted due to unresponsive or misconfigured external servers, problems with external server configuration on Data ONTAP®, or internal errors while processing the rules.

Corrective Action

Verify that external name services (such as DNS, NIS, LDAP, Kerberos, or AD) are responsive to queries from Data ONTAP®. Use the "vserver show -fields id" command to get the Vserver name corresponding to Vserver ID, and use the "vol show -fields msid" command to get the volume name corresponding to the volume MSID. Use the "vserver export-policy check-access" command to troubleshoot it further, or contact

NetApp technical support for further assistance in reviewing the name services logs.

Syslog Message

Access to volume with MSID %llu in Vserver %u could not be evaluated for client "%s" as per export ruleset %llu.

Parameters

msid (LONGINT): MSID of the volume on which access was attempted.
vserverId (INT): Identifier for the Vserver associated with this access.
clientAddr (STRING): IP address of the client attempting access.
rulesetID (LONGINT): Export rule set ID.

nblade.fastrecoverybegin events

Nblade.fastRecoveryBegin

Severity

NOTICE

Description

This message occurs when the NFSv4.x server enters the fast recovery mode as part of the LIF migration event, during which the NFS server will not be able to serve any data for NFSv4.x clients.

Corrective Action

(None).

Syslog Message

NFS server fast recovery has started for SVM "%s", LIF ID "%d", LIP IP address "%s".

Parameters

vserverName (STRING): SVM Name.
lifId (INT): LIF ID
lifIpAddress (STRING): LIF IP address for the NFS server.

nblade.fastrecoveryend events

Nblade.fastRecoveryEnd

Severity

NOTICE

Description

This message occurs when the NFSv4.x server finishes the recovery and is ready to serve data from NFSv4.x clients.

Corrective Action

(None).

Syslog Message

NFS server fast recovery has ended for SVM "%s", LIF ID "%d", LIF IP address "%s".

Parameters

vserverName (STRING): SVM Name.
lifId (INT): LIF ID
lifIpAddress (STRING): LIF IP address for the NFS server.

nblade.fcvoldisconnected events

Nblade.fcVolDisconnected

Severity

EMERGENCY

Description

This message occurs when the NFS client attempts to access a FlexCache® volume, but the origin of the FlexCache volume cannot be accessed due to poor network connectivity. As a result, NFS clients will lose access to the FlexCache volume.

Corrective Action

Verify that the FlexCache volume can connect with its origin. If the FlexCache volume and origin volume are on the same cluster, then check the node health by using the "system node show" command. If the FlexCache volume and origin volume are on different clusters, then ensure that the intercluster LIFs on both clusters can connect by using the "network ping" commands to check the connectivity on both the clusters.

Syslog Message

Attempt to access FlexCache volume with MSID %u on Vserver ID %u failed because FlexCache origin volume with MSID %u is not reachable.

Parameters

cacheMsid (LONGINT): MSID of the FlexCache volume.
cacheVserverId (INT): Identifier for the FlexCache Vserver associated with this operation.
originMsid (LONGINT): MSID of the origin of the FlexCache volume.

nblade.fileopenlimitexceeded events

Nblade.fileOpenLimitExceeded

Severity

NOTICE

Description

This message occurs when the number of open files on a single SMB connection or session exceeds the system limit.

Corrective Action

(None).

Syslog Message

Number of open files has reached the maximum limit of (%d).

Parameters

> **filesopen** (INT): Number of files that are open.

nblade.flexcachecaaccess events

Nblade.flexcacheCAAccess

Severity

> ERROR

Description

> This message occurs when a client tries to access a FlexCache® volume via SMB3 using a continuously available share but is denied because FlexCache does not support persistent handle capability.

Corrective Action

> Either remove the continuously available property from the CIFS share or create a new share without this property to access the FlexCache volume over SMB.

Syslog Message

> Attempt to access FlexCache volume with MSID %u via SMB3 over a continuously available share is denied.

Parameters

> **msid** (INT): MSID of the FlexCache volume being accessed.

nblade.flexcachevolumeaccess events

Nblade.flexCacheVolumeAccess

Severity

> ERROR

Description

> This message occurs when a client tries to access a FlexCache volume through an unsupported protocol. Currently only NFSv3,NFSv4,NFSv4.1 and SMB clients are supported by FlexCache.

Corrective Action

> Make sure a FlexCache-supported protocol is specified for all client mount operations through which a FlexCache volume can be accessed. If using FlexCache, specify 'nfsvers=3' or 'nfsvers=4' or 'nfsvers=4.1' as an option for the 'mount' command on all clients accessing a FlexCache volume.

Syslog Message

> Attempt to access FlexCache volume %s in SVM %s via %s denied for client %s.

Parameters

> **volName** (STRING): Name of the FlexCache volume being accessed.
> **vserverName** (STRING): Name of the vserver associated with this operation.
> **protocol** (STRING): Client protocol.
> **clientIpAddress** (STRING): IP address of the client machine.

nblade.flexgroupstatefulprotocolaccess events

Nblade.flexgroupStatefulProtocolAccess

Severity

ERROR

Description

This message occurs when the system detects an attempt to use Network Lock Manager (NLM) shared locks on a FlexGroup volume. FlexGroup volumes do not support NLM shared locks.

Corrective Action

FlexGroup volumes do not support shared locks. Consider using FlexGroup volumes that support stateful protocols such as NFSv4.0,NFSv4.1,SMB1 or SMB2 in order to use shared locks.

Syslog Message

Attempt to access FlexGroup volumes with Master Data Set ID "%u" with "%s" is denied.

Parameters

msid (INT): Master Data Set ID of the FlexGroup volume being accessed.
protocol (STRING): Client protocol being used.

nblade.fpolicy events

nblade.fpolicy.extn.failed

Severity

EMERGENCY

Description

This message occurs when an I/O operation directed at a FlexCache® volume fails because the file extension include and exclude list of one of the policies is too long to send to the origin of the FlexCache volume.

Corrective Action

Decrease the number of file extensions configured in the include and exclude list in the FPolicy scope by using the "fpolicy policy scope modify" command.

Syslog Message

FPolicy processing failed on volume MSID "%lu", for Vserver ID "%lu", policy ID "%lu", as the combined length for the file extension include and exclude list is greater than %llu. Decrease the number of file extensions configured.

Parameters

msid (LONGINT): MSID of FlexCache volume.
vserverid (LONGINT): ID of the Vserver.
policyid (LONGINT): ID of the FPolicy.
maxmimumListLengthAllowed (LONGINT): Maximum length that can be sent to the origin volume.

Nblade.fpolicy.flow.control

Severity

ERROR

Description

This message occurs when FPolicy flow control is engaged due to large number of file operations being monitored by FPolicy. If this condition persists, there might be an adverse effect on client operation latency.

Corrective Action

Check the FPolicy configuration to make sure that only intended file operations are monitored and appropriate filters are applied.

Syslog Message

FPolicy flow control is engaged as the monitored file operations rate crossed the sustainable limit[%d] for this platform.

Parameters

flowControlLimit (INT): Maximum number of file operations per second that can be monitored by FPolicy.

nblade.fpolicy.policy.skip

Severity

EMERGENCY

Description

This message occurs when a non-mandatory FPolicy(tm) policy check is skipped while processing an I/O on the FlexCache® volume because the file extension include and exclude list of the policy is too long to send to the origin volume of the FlexCache volume. The error does not fail the operation and other policies, if any, are matched.

Corrective Action

Decrease the number of file extensions configured in the include and exclude list in the FPolicy scope by using the "fpolicy policy scope modify" command.

Syslog Message

FPolicy check is skipped for a non-mandatory policy ID "%lu" on volume MSID "%lu" for Vserver ID "%lu" because the combined length for the file extension include and exclude list is greater than %llu.

Parameters

policyid (LONGINT): ID of the FPolicy policy.
msid (LONGINT): MSID of the FlexCache volume.
vserverid (LONGINT): ID of the Vserver.
maximumListLengthAllowed (LONGINT): Maximum length that can be sent to the origin volume.

nblade.fpolpassthruconnect events

Nblade.fpolPassthruConnect

Severity

INFORMATIONAL

Description

This message occurs when a pass-through read channel is established between the node and the FPolicy server.

Corrective Action

(None).

Syslog Message

Pass-through read channel with the FPolicy server was established. Vserver ID [%d], FPolicy server IP address [%s].

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.
fpserverIp (STRING): IP address of the FPolicy server.

nblade.fpolpassthrudisconn events

Nblade.fpolPassthruDisconn

Severity

INFORMATIONAL

Description

This message occurs when the pass-through read channel between the node and the FPolicy server is disconnected.

Corrective Action

(None).

Syslog Message

Pass-through read channel with the FPolicy server is disconnected. Vserver ID [%d], FPolicy server IP address [%s], Disconnect reason [%s].

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.
fpserverIp (STRING): IP address of the FPolicy server.
disconnReason (STRING): Reason for disconnection.

nblade.fpolpassthruonsmb1 events

Nblade.fpolPassthruOnSMB1

Severity

ERROR

Description

This message occurs during a client attempt to establish an FPolicy pass-through read channel over SMB1, which is not supported.

Corrective Action

Verify that both the client and Data ONTAP® support and are configured for SMB2 or later.

Syslog Message

For Vserver "%s", the FPolicy pass-through read channel request coming from the client "%s" is rejected because it is not supported for SMB1.

Parameters

vserverName (STRING): Vserver associated with this operation.
fpserverIp (STRING): IP address of the client.

nblade.fpolpsinitfail events

Nblade.fpolPsInitFail

Severity

ERROR

Description

This message occurs when initialization of any FPolicy persistent store resource fails. It includes free and active staging buffer pool, fname cache and dirty SVM cache.

Corrective Action

Contact NetApp technical support.

Syslog Message

Initialization of FPolicy resource the "%s" is unsuccessful.

Parameters

resource (STRING): Uninitialized resource.

nblade.fpolpsvolmoving events

Nblade.fpolPsVolMoving

Severity

ERROR

Description

This message occurs when the FPolicy persistent store volume is being moved. This causes disruption in FPolicy where persistent store is enabled.

Corrective Action

Disable the FPolicy with a persistent store until volume move is completed.

Syslog Message

FPolicy persistent store volume "%s" belonging to SVM "%s" is being moved.

Parameters

volName (STRING): Persistent store volume.
vserverName (STRING): Name of the SVM.

nblade.fpolpsvolnoaccess events

Nblade.fpolPsVolNoAccess

Severity

ERROR

Description

This message occurs when events cannot be written into persistent store volume due to insufficient permissions. This causes disruption in FPolicy where persistent store is enabled.

Corrective Action

Check the permissions of the persistent store volume and provide full access.

Syslog Message

Events cannot be written into the persistent store volume "%s" in SVM "%s" due to insufficient permissions.

Parameters

volName (STRING): Persistent store volume
vserverName (STRING): Name of the SVM.

nblade.fpolpsvolnospace events

Nblade.fpolPsVolNoSpace

Severity

ERROR

Description

This message occurs when persistent store volume is full. This causes disruption in FPolicy where persistent store is enabled.

Corrective Action

Increase the persistent store volume size.

Syslog Message

FPolicy persistent store volume "%s" belonging to SVM "%s" has no space for new notifications. This leads to drop of notifications.

Parameters

volName (STRING): Persistent store volume.
vserverName (STRING): Name of the SVM.

nblade.fpolpsvolnotfound events

Nblade.fpolPsVolNotFound

Severity
ERROR

Description
This message occurs when volume corresponding to persistent store is not found. This causes disruption in FPolicy where persistent store is enabled.

Corrective Action
Check the volume corresponding to the persistent store. Either recreate the volume with same name or delete the persistent store.

Syslog Message
FPolicy persistent store volume "%s" belonging to SVM "%s" was not found.

Parameters
volName (STRING): Persistent store volume.
vserverName (STRING): Name of the SVM.

nblade.fpolpsvolofflined events

Nblade.fpolPsVolOfflined

Severity
ERROR

Description
This message occurs when persistent store volume is offline. This causes disruption in FPolicy where persistent store is enabled.

Corrective Action
Check the volume corresponding to the persistent store. Either online the volume for use or delete the corresponding persistent store.

Syslog Message
FPolicy persistent store volume "%s" belonging to SVM "%s" is offline.

Parameters
volName (STRING): Persistent store volume.
vserverName (STRING): Name of the SVM.

nblade.gracebegin events

Nblade.graceBegin

Severity

NOTICE

Description

This message occurs when the NFS server enters the grace state.

Corrective Action

(None).

Syslog Message

NFS server grace state has begun for Vserver "%s", LIF ID "%d", LIP IP address "%s".

Parameters

vserverName (STRING): Vserver Name.
lifId (INT): LIF ID
lifIpAddress (STRING): LIF IP address for the NFS server.

nblade.graceend events

Nblade.graceEnd

Severity

NOTICE

Description

This message occurs when the NFS server exits the grace state.

Corrective Action

(None).

Syslog Message

NFS server grace state has ended for Vserver "%s", LIF ID "%d", LIF IP address "%s".

Parameters

vserverName (STRING): Vserver Name.
lifId (INT): LIF ID
lifIpAddress (STRING): LIF IP address for the NFS server.

nblade.httpmaxconntimeouts events

Nblade.httpMaxConnTimeOuts

Severity

ERROR

Description

This message occurs when the HTTP subsystem, which monitors connection timeouts due to an unresponsive client or data not received from the client within a specified time, especially a PUT request or an HTTP Request containing Request Body. If the number of timeouts allowed in a given period of time is being exceeded, it could be due to network failures or DoS(Denial of Service) attacks. This might result in

HTTP client connection failures, because most connections are using resources and waiting for data.

Corrective Action

Inspect the clients that are experiencing a long delay in packet trace tools. Inspecting the client network might be helpful as well.

Syslog Message

The HTTP subsystem on this node on vserver %u has exceeded its connection timeout limit of %llu times, currently %llu connection timeout failures observed since boot time. This might result in unexpected HTTP connection failures.

Parameters

vsId (INT): Id of the vserver, on which this event occurred.
currentNumConnTimeouts (LONGINT): Total number of connection timeouts that occured in the HTTP subsystem.
totalNumConnTimeouts (LONGINT): Maximum number of connection timeouts allowed in the HTTP subsystem.

nblade.httpmemexceeded events

Nblade.httpMemExceeded

Severity

ERROR

Description

This message occurs when the HTTP subsystem, which operates all the HTTP servers exposed through a given node, has requested more memory than it is allowed in this node. The subsystem is restricted to a percentage of total memory in the node, so the node itself need not be low on memory for this to occur. HTTP memory is not allocated in advance and so HTTP memory requests compete with other system processes. This message might not appear if a memory request from HTTP cannot be honored because the node is already low on memory. This might result in HTTP client connection failures.

Corrective Action

Compare the number of memory allocation failures with the previous occurence of this event to understand the load on the system. Further analyze the memory allocated to the HTTP subsystem on this node by viewing the nblade_http object instance for this node through the "statistics show" interface. Based on that data, consider distributing HTTP load by moving data LIFs, adding data LIFs, and redirecting workloads, or by shutting down non-essential workloads to alleviate the memory pressure.

Syslog Message

The HTTP subsystem on this node has exceeded its allotment of %llu bytes of node memory with currently %llu memory allocation failures since boot time. This might result in unexpected HTTP connection failures.

Parameters

availableMemoryInBytes (LONGINT): Amount of memory available to the HTTP subsystem.
memAllocFailures (LONGINT): Number of memory allocation failures in the HTTP subsystem since boot time.

nblade.invtcprecordmarker events

Nblade.invTcpRecordMarker

Severity

ERROR

Description

This message occurs when a TCP connection is reset due to an invalid TCP record marker in an Open Network Computing/Remote Procedure Call request.

Corrective Action

1. Use the IP address from the log to identify the client machine that sent the invalid TCP record marker. 2. Use the TCP port number to determine which service was being requested by the client. 3. Contact the OS vendor for the client machine for a software patch.

Syslog Message

Invalid TCP record marker received from remote IP address %s on local port %d. Vserver ID associated with this operation is %d. Invalid reason is %s, invalid record marker is %d.

Parameters

remoteIpAddress (STRING): IP address of the client machine.
localPort (INT): Local TCP port number that received the data.
VirtualServer (INT): Identifier for the Vserver associated with this operation.
reason (STRING): Reason the record marker was invalid: - "TCP_FRAGMENT" indicates that RPC TCP fragments that are not supported at this time. - "TCP_DATA_LENGTH_OVERFLOW" indicates an oversized record marker; that is, the record marker value was greater than the maximum supported size, currently 1MB. - "TCP_DATA_LENGTH_UNDERFLOW" indicates an undersized record marker; that is, the record marker value was below the minimum supported size, currently 40 bytes.
recordMarker (INT): Actual 32-bit record marker that was received and marked as invalid.

nblade.junctionrootlookup2 events

Nblade.JunctionRootLookup2

Severity

ERROR

Description

This message occurs when the system cannot obtain the root file handle of the volume mounted on a junction path. The cause of the problem might be that the target node is down or the target volume or aggregate is offline. The typical client operation that triggers a junction root lookup is a directory list operation where one of the directory entries is a junction. As long as the root of the volume at the junction cannot be looked up, the NFS client that is listing the directory appears to hang.

Corrective Action

Check whether the volume or aggregate or node that matches the given MSID is offline. If it is, bring it online if possible.

Syslog Message

Junction root lookup failed for a volume (Name: %s, MSID: %llu) in Vserver (Name: %s, ID: %llu) with reason: %s.

Parameters

volName (STRING): Name of the volume mounted at the junction being looked up.
msid (LONGINT): Master Data Set ID (MSID) of the volume mounted at the junction being looked up.
vserverName (STRING): Vserver name for this MSID.
vserverId (LONGINT): Vserver for this MSID.
reason (STRING): Additional information about why the operation failed.

nblade.longrunningrpcop events

Nblade.longRunningRpcOp

Severity

ERROR

Description

This message occurs when a running remote procedure call (RPC) operation takes longer than a defined length of time. The message indicates that the RPC operation has not been completed. If the condition persists, any operation to that RPC server is likely to fail.

Corrective Action

Check the progress of the operation by using the (privilege: advanced) "statistic show -component nblade_rpc_server -instance [RPC_server_name] -raw true -counter curr_head*" command. If the curr_head_proc_time_secs counter keeps incrementing, the operation has not been completed. This condition might cause network configuration and status commands to fail consistently. If the operation does not get completed, contact technical support for assistance.

Syslog Message

Detected a long-running RPC operation (procedure number %u) for RPC server %s. The server has not responded in %lu seconds, which is over the threshold of %lu seconds.

Parameters

procedure (INT): Procedure number of the RPC operation.
RpcServer (STRING): Name of the RPC server.
timeSecs (LONGINT): Time in seconds since the current longest operation was allocated.
timeThresholdSecs (LONGINT): Time threshold that an operation should finish by.

nblade.nbnstoomanylifs events

Nblade.NbnsTooManyLifs

Severity

ERROR

Description

This message occurs when the NetBIOS Name Service receives more than 25 IP addresses for a name registration request. This is typically caused because of an upgrade from a previous release that had more than 25 IP addresses configured for a Vserver and WINS was configured. In such a scenario, clients might

not be able to access data because some of the IP addresses might not have registered with WINS.

Corrective Action

If there are more than 25 IP addresses configured for a Vserver, modify the "nbns-enabled-lifs" CIFS option to no more than a maximum of 25 LIFs by using the 'vserver cifs options modify -vserver <vserver> -nbns -enabled-lifs' command in advanced privilege mode when the effective cluster version is Data ONTAP 9.0 or later. In a mixed-mode cluster with a node running Data ONTAP 8.3, do not configure more than 25 LIFs per Vserver because of the following WINS server limitation: https://www.microsoft.com/resources/documentation/windowsnt/4/server/reskit/en-us/net/sur_wins.mspx

Syslog Message

The NetBIOS Name Service received more than 25 IP addresses for name registration for Vserver %u.

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.

nblade.newclientidmismatch events

Nblade.NewClientIdMismatch

Severity

ALERT

Description

This message occurs when a namestring collision occurs between NFS clients.

Corrective Action

Ensure client has unique hostname and NFSv4 mount clientaddr to avoid this.

Syslog Message

NFSv4 name string "%s" collision between clients %s and %s.

Parameters

clientNameStr (STRING): Client identifier namestring during SETCLIENTID operation.
existingStr (STRING): IP address of the existing client.
newStr (STRING): IP address of the new client.

nblade.nfs4illegaldirentname events

Nblade.Nfs4IllegalDirentName

Severity

ERROR

Description

This message occurs when a user attempts to list a directory over NFSv4 that contains an entry name with non UTF-8 characters. The problematic directory entry name was most likely created over NFSv2 or NFSv3 and could not be translated to Unicode using the translation table determined by the virtual server's language setting. A possible reason for this could be a client or server language misconfiguration issue.

Corrective Action

Use the "vol show -fields msid" command to find the volume name corresponding to the volume MSID. Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Access the parent directory from an NFSv3 client, and then rename the entry using Unicode characters.

Syslog Message

Directory entry with file ID '%u' on the volume with MSID '%llu' cannot be listed. Directory entry name is illegal for NFSv4.

Parameters

fileid (INT): File ID of the directory entry.
msid (LONGINT): MSID of the volume, where the directory entry resides.

nblade.nfs4opnotsupported events

Nblade.Nfs4OpNotSupported

Severity

NOTICE

Description

This message occurs when a NFSv4 client presents an unsupported operation to the server.

Corrective Action

(None).

Syslog Message

NFSv4 operation '%d' is not supported.

Parameters

opcode (INT): ID of unssupported operation.

nblade.nfs4sequenceinvalid events

nblade.nfs4SequenceInvalid

Severity

NOTICE

Description

This message occurs when an NFS server detects an unexpected value for an incoming sequence number from a client.

Corrective Action

(None).

Syslog Message

NFS client (IP: %s) sent sequence# %d, but server expected sequence# %d. Server error: %s.

Parameters

clientIpAddress (STRING): IP address of the NFS client.
InSeqid (INT): Incoming sequence number from the client.
NextSeqid (INT): Expected sequence number from the server.
NfsError (STRING): NFS protocol error.

nblade.nfs4trunkmaxlimit events

Nblade.nfs4TrunkMaxLimit

Severity

ERROR

Description

This message occurs when a session trunking group created by the NFSv41 client exceeds the maximum number of supported trunk connections. NFS traffic does not respond on the new trunk connection over the maximum limit.

Corrective Action

Use only up to the maximum number of supported LIFs for session trunked NFS41 clients. Modify the NFS client configurations to limit the number of trunked sessions to the maximum supported to avoid the issue.

Syslog Message

In-flight requests from client IP [%s]:%d to destination LIF "%s" (Vserver: %s) is trying to use more than max supported:"%d" trunking connections. This results in NFS41 request getting not responded by NFS server due to limit reached.

Parameters

clientIpAddress (STRING): IP address of the client.
clientPort (INT): Network port of the client.
lifIpAddress (STRING): IP address of the logical interface.
vserverName (STRING): Name of the Vserver associated with this operation.
maxTrunkConnectionLimit (INT): Maximum number of allowed trunked connection by NFS41 server.

nblade.nfs4unoptimizedio events

Nblade.nfs4UnOptimizedIO

Severity

ALERT

Description

This message occurs when a session trunking group that is created by the NFSv41 client is split across multiple nodes. This can occur when one or more trunked data LIFs used in the trunking group migrate to the partner node. A split session trunking group can severely degrade performance of NFS client operations.

Corrective Action

Address any network or hardware issues that might have caused the LIFs to migrate. Ensure trunked data LIFs are on the same node. Use the "network interface show" and "network interface migrate" commands to revert the migrated LIF to the original node where the trunking relationship was created for that LIF.

Syslog Message

In-flight requests from client IP [%s]:%d to destination LIF "%s" (Vserver: %s) was using an unoptimized path for processing the request because of a split session trunking group. The NFSv4 client might experience degraded performance.

Parameters

clientIpAddress (STRING): IP address of the client.
clientPort (INT): Network port of the client.
lifIpAddress (STRING): IP address of the logical interface.
vserverName (STRING): Name of the Vserver associated with this operation.

nblade.nfsconnresetandclose events

Nblade.nfsConnResetAndClose

Severity

ERROR

Description

This message occurs when the server aborts the connection with the client by sending one or more RST segments, immediately resulting in the connection state being discarded.

Corrective Action

If this message occurs more than three times for a particular client in 30-60 minutes, make note of the IP address of the affected client. Verify that the network between the client and the storage system is functioning normally. After verifying the health of the network, verify that there are no issues related to networking on the client side. Check IP connectivity over the cluster interfaces between the two nodes. If the problem persists after addressing issues on the network or the client, contact NetApp technical support.

Syslog Message

Shutting down connection with the client. Vserver ID is %d; network data protocol is %s, Rpc Xid 0x%x; client IP address:port is %s:%d. local IP address is %s; reason is %s.

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.
serviceProtocol (STRING): Network data protocol used in the connection.
rpcXid (INT): Remote procedure call XID.
remoteAddr (STRING): IP address of the client machine.
remotePort (INT): TCP or UDP port number used by the remote client to send the data.
localAddr (STRING): IP address of the local interface serving the protocol operation.
reason (STRING): Reason for the disconnection.

nblade.nfscredcacheflushed events

Nblade.nfsCredCacheFlushed

Severity

NOTICE

Description

This message occurs when the administrator modifies the options "extended-groups-limit", "auth-sys-extended-groups" or "v4-id-domain" option using the "vserver nfs modify" command. This results in the flushing of the credential cache of that corresponding storage virtual machine (SVM) that holds credentials on connections that use mixed-mode security style volumes, RPCSEC_GSS authentication or extended groups over AUTH_SYS. As a result, the subsequent operations are slower for a short while until the credential cache is repopulated.

Corrective Action

(None).

Syslog Message

Credential cache flushed on SVM "%s" after modification of "extended-groups-limit", "auth-sys-extended-groups" or "v4-id-domain" NFS options. NFS connection operations are slower until the credential cache is repopulated.

Parameters

vserverName (STRING): Name of the SVM associated with this operation.

nblade.nfsmountrootonly events

Nblade.NfsMountRootOnly

Severity

NOTICE

Description

This message occurs when a non-root user performs MOUNT or NFS operation when the respective options '-mount-rootonly' or 'nfs-rootonly' are enabled.

Corrective Action

(None).

Syslog Message

%s operation by non-root user failed. Vserver ID is %d; ProgramNumber is %d; client IP address:port is %s:%d; local IP address is %s; Procedure number is %d.

Parameters

serviceProtocol (STRING): Network data protocol used in the connection.
vserverId (INT): Identifier for the vserver associated with this operation.
programNumber (INT): RPC Program Number.
remoteAddr (STRING): IP address of the client machine.
remotePort (INT): Remote port number that sent the data.
localAddr (STRING): IP address of the local interface serving the protocol operation.
procedureNum (INT): RPC Procedure Number for the requested operation.

nblade.nfspathresmaxlinks events

Nblade.nfsPathResMaxLinks

Severity

ERROR

Description

This message occurs while resolving an input path, when the server has reached the limit of maximum links it can follow and the corresponding RPC fails.

Corrective Action

Use the client IP address included in this message to identify the client sending the request. An operation such as mount or rquota. failing on this client might be due to this error. Reduce the number of symlinks to be followed for the failing operation.

Syslog Message

NFS maximum symbolic link limit reached when resolving path. Vserver ID: %d, service protocol:version is %s:%d, client IP address:port is %s:%d, local IP address: %s, RPC procedure number: %d.

Parameters

vserverId (INT): Identifier for the Vserver associated with this operation.
serviceProtocol (STRING): Network data protocol used in the connection.
programVersion (INT): RPC program version.
remoteAddr (STRING): IP address of the client machine.
remotePort (INT): Remote port number that sent the data.
localAddr (STRING): IP address of the local interface serving the protocol operation.
procedureNum (INT): RPC procedure number for the requested operation.

nblade.nfsrcchecksummismatch events

Nblade.nfsRCChecksumMismatch

Severity

ALERT

Description

This message occurs when the server detects a retransmitted request from the client with a modified payload. Modified requests from the client could cause corruption and pose a security threat to the server. Please use the information in the event to identify and monitor the bad client connection.

Corrective Action

1. Use the IP address from the log to identify the client machine and connection that retransmitted the invalid modified request. 2. Monitor the client connection and if invalid modified requests are persistent, take steps to ensure the security of the connection has not been compromised. 3. If there are no security concerns with the client connection, then the application driving traffic on that connection and the client OS NFS implementation should be examined to identify potential software defects.

Syslog Message

Replay cache checksum mismatch detected in retransmitted NFS request from client. Vserver ID is %d; service protocol:version is %s:%d, Rpc Xid 0x%x; client IP address:port is %s:%d. local IP address is %s; NFS procedure number is %d.

Parameters

vserverId (INT): Identifier for the vserver associated with this operation.
serviceProtocol (STRING): Network data protocol used in the connection.
programVersion (INT): RPC Program Version.
rpcXid (INT): Remote procedure call XID.
remoteAddr (STRING): IP address of the client machine.
remotePort (INT): Remote port number that sent the data.
localAddr (STRING): IP address of the local interface serving the protocol operation.
procedureNum (INT): RPC Procedure Number for the requested operation.

nblade.nfsv3writetoolarge events

Nblade.Nfsv3WriteTooLarge

Severity

ERROR

Description

This message occurs when a client attempts to write over NFSv3 with an amount of data that is greater than the maximum allowed TCP or UDP transfer size. This is an invalid request from the client and the data is not written.

Corrective Action

Try the operation again with the number of bytes of data that is less than or equal to the maximum allowed TCP or UDP transfer size configured in the server. You can set the write size option in the 'mount' command to the TCP or UDP transfer size.

Syslog Message

%d bytes of data to be written is greater than the maximum allowed TCP or UDP transfer size, which is %d. Data is not written. Associated object type is %s with UUID: %s.

Parameters

opaqueLen (INT): Number of bytes of data that were to be written.
maxXferSize (INT): Maximum allowed TCP/UDP transfer size configured in the server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.nfsv4blockclient events

Nblade.nfsV4BlockClient

Severity

NOTICE

Description

This message occurs when an NFSv4 client consumes the maximum allowed store pool resources and the store pool system threshold has also been reached. In response, the NFSv4 server disconnects the client, places the client in the blocked client list and does not allow it to reconnect for 24 hours.

Corrective Action

If you need further assistance, contact NetApp technical support.

Syslog Message

NFSv4 client "%s" has consumed the maximum store pool resources of type "%s". It is disconnected and is marked as a blocked client.

Parameters

clientIpAddress (STRING): IP address of the client.
poolName (STRING): NFSv4 store pool type.

nblade.nfsv4nsdbdomainmismatch events

Nblade.Nfsv4NsdbDomainMismatch

Severity

ERROR

Description

This message occurs when an NFSv4 client queries or updates the user or group attribute of a file object but the requested value does not match the '-v4-id-domain' option value of a virtual server's NFS service. In NFSv4, users and groups are represented as names of the form string@domain. The domain string must match on the client and server to ensure correct operation. The NFSv4 client request, on whose behalf this event message is issued, is rejected with an NFS4ERR_BADOWNER error.

Corrective Action

Update the client or server NFSv4 domain string to ensure that they match. If a single client experiences the issue, you typically just need to modify that client. See the client vendor's documentation to change the NFSv4 domain name configuration. If multiple clients experience the issue, you typically need to update the value of the '-v4-id-domain' option in the NFS server configuration.

Syslog Message

NFSv4 server %s received domain string %s from client %s, which does not match the '-v4-id-domain' value %s.

Parameters

serverIp (STRING): IP address of the server processing the NFSv4 request.
clientDomain (STRING): NFSv4 domain string received from the client
clientIp (STRING): IP address of the client.
serverDomain (STRING): Domain string that the NFSv4 server expected.

nblade.nfsv4poolexhaust events

Nblade.nfsV4PoolExhaust

Severity

EMERGENCY

Description

This message occurs when one of the NFSv4 store pools is exhausted.

Corrective Action

If the NFS server is unresponsive for more than 10 minutes after this error occurs, contact NetApp technical support.

Syslog Message

NFS Store Pool for %s exhausted. Associated object type is %s with UUID: %s.

Parameters

poolname (STRING): NFSv4 store pool type where the exhaustion happened.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.nfsv4poolthreshold events

Nblade.nfsV4PoolThreshold

Severity

NOTICE

Description

This message occurs when one of the NFSv4 store pools is nearing exhaustion (80% of max size). If the condition is allowed to continue, the store pool limits will be reached leading certain NFSv4 request failures.

Corrective Action

Reduce NFSv4 workload like active opens, users and client connections which consume store pool objects to ensure their counts remain under pre-defined limits.

Syslog Message

NFS Store Pool for %s is nearing exhaustion (%s of pool currently in use).

Parameters

poolname (STRING): NFSv4 store pool type where the maximum limits are nearing.
percent (STRING): Percentage of store pool objects of type currently in use.

nblade.nfsv4writetoolarge events

Nblade.Nfsv4WriteTooLarge

Severity

ERROR

Description

This message occurs when a client attempts to write over NFSv4 with an amount of data that is greater than the maximum allowed TCP transfer size. This is an invalid request from the client and the data is not written.

Corrective Action

Try the operation again with the number of bytes of data that is less than or equal to the maximum allowed TCP transfer size configured in the server. You can set the write size option in the 'mount' command to the TCP transfer size.

Syslog Message

%d bytes of data to be written is greater than the maximum allowed TCP transfer size, which is %d. Data is not written. Associated object type is %s with UUID: %s.

Parameters

opaqueLen (INT): Number of bytes of data that were to be written.
maxtcpxferSize (INT): Maximum allowed TCP transfer size configured in the server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.nocsmsession events

Nblade.noCsmSession

Severity

NOTICE

Description

This message occurs when the local node could not acquire a Connection Session Manager (CSM) session. CSM sessions are used to communicate file operations between nodes in the cluster. This might be a transient condition. If this condition persists, volumes on the destination node remain unavailable from this node. The destination node can be either local or remote.

Corrective Action

Check IP connectivity over the cluster interfaces between the two nodes. If further assistance is needed, contact NetApp technical support.

Syslog Message

(None).

Parameters

bladeId (STRING): UUID of the node that could not be reached.

nblade.nosmbvernegotiated events

Nblade.noSmbVerNegotiated

Severity

ERROR

Description

This message occurs when Data ONTAP® does not support any of the SMB protocol versions sent by the client for negotiation.

Corrective Action

Ensure that the client supports at least one of the enabled SMB versions. You can determine whether an SMB version is enabled by running the "vserver cifs options show" command in advanced mode.

Syslog Message

For Vserver "%s", Data ONTAP® could not negotiate with the client "%s" because it does not support any of

the SMB protocol versions that the client sent in the list "%s".

Parameters

> **vserverName** (STRING): Vserver associated with this operation.
> **clientIp** (STRING): IP address of the client attempting to negotiate.
> **clientVersionList** (STRING): List of the SMB protocol versions sent by the client.

nblade.notactivevscanserver events

Nblade.NotActiveVscanServer

Severity

ERROR

Description

This message occurs when a connection from a remote IP is not found in the Vscan scanner pool belonging to the storage virtual machine (SVM). Session setup request fails.

Corrective Action

Investigate if the associated IPs need to be added to the active scanner pool.

Syslog Message

CIFS connection on SVM %s (ID %u) from IP address %s fails to bind to an established Vscan related session because the IP address is not in the active scanner pool.

Parameters

> **vserverName** (STRING): Name of the SVM associated with this operation.
> **vsId** (INT): ID of the SVM on which this event occurred.
> **remoteIpAddress** (STRING): IP address of the client machine.

nblade.pcp events

Nblade.pcp.linkThrashing

Severity

INFORMATIONAL

Description

This message occurs when a network port undergoes multiple link state transitions within a short period of time. The event might be triggered in response to a rapid sequence of switch events or there might be a bad link.

Corrective Action

If this problem persists, check the physical connections between the affected port and its network switch. You can identify the faulty port by reviewing the event log for link state transitions reported by the NIC. One or more ports should have reported multiple linkUp and linkDown events prior to the linkThrashing message. ::> event log show -node <node> -messagename netif.link* If checking physical connections does not identify the problem, consider replacing the corresponding NIC.

Link thrashing detected on port %u.

Parameters

port (INT): Port ID.

nblade.qosvioldetectregfail events

Nblade.QoSViolDetectRegFail

Severity

ERROR

Description

This message occurs when the Quality-of-Service (QoS) subsystem fails to register for updates during initialization due to an internal error (e.g. there is not enough system memory available). As a result, workloads might not meet their minimum throughput or their service-level objectives (SLOs).

Corrective Action

The registration will continue to be retried. If this message continues to occur, perform a planned takeover/giveback sequence to reset the reporting node nondisruptively by using the "takeover -ofnode (reporting_node)" and "giveback -ofnode (reporting_node)" commands. If the problem persists, contact Contact NetApp technical support.

Syslog Message

Failed to register for violation detection updates. QoS min-throughput might operate in a limited capacity.

Parameters

errorCode (INT): Error code that was returned during registration.

nblade.rcbinid events

nblade.RCBinId.timeout

Severity

NOTICE

Description

This message occurs when an NFS replay cache bin ID entry expires.

Corrective Action

(None).

Syslog Message

Found replay cache expired entry for NFS client IP address: %s.

Parameters

ipaddr (STRING): IP address of the NFS client.

nblade.recoverybegin events

Nblade.recoveryBegin

Severity

NOTICE

Description

This message occurs when the NFS server enters the lock recovery state.

Corrective Action

(None).

Syslog Message

NFS server lock recovery has begun for Vserver "%s", LIFID "%d", LIF IP address "%s".

Parameters

vserverName (STRING): Vserver Name.
lifId (INT): LIF ID
lifIpAddress (STRING): LIF IP address for the NFS server.

nblade.s3bucketpathnotfound events

Nblade.s3BucketPathNotFound

Severity

ERROR

Description

This message occurs when the path of the NAS directory corresponding to an S3 NAS Bucket was not found. This would cause all accesses to that S3 bucket to fail.

Corrective Action

Check the NAS path corresponding to the S3 bucket. Either recreate the NAS path or delete the S3 bucket.

Syslog Message

NAS path "%s" corresponding to S3 bucket "%s" was not found on Vserver "%s".

Parameters

nasPath (STRING): NAS directory path of the S3 bucket that was not found.
bucketName (STRING): Name of the S3 bucket associated with this operation.
vserverName (STRING): Vserver associated with this operation.

nblade.scannerconnected events

Nblade.scannerConnected

Severity

NOTICE

Description

This message occurs when a Vserver connects successfully to a Vscan server.

Corrective Action

(None).

Syslog Message

Vserver "%s" connected to Vscan server (IP: %s).

Parameters

vserverName (STRING): Name of the connecting Vserver.
scannerIp (STRING): IP address of the Vscan server.

nblade.scannerdisconnected events

Nblade.scannerDisconnected

Severity

NOTICE

Description

This message occurs when any Vserver disconnects from a Vscan server.

Corrective Action

(None).

Syslog Message

Vserver "%s" disconnected from Vscan server (IP: %s).

Parameters

vserverName (STRING): Name of the disconnected Vserver.
scannerIp (STRING): IP address of the Vscan server.

nblade.sectracequeoverload events

Nblade.sectraceQueOverload

Severity

ALERT

Description

This message occurs when there are too many Sectrace work items. This might be the result of a very generic filter. For example, tracing of succesful NFS accesses can quickly generate a large number of Sectrace items, since all ops (each read or write) might generate a security trace.

Corrective Action

Check the Sectrace filter and make it more specific.

nblade.sharemaxconnlimit events

Nblade.shareMaxConnLimit

Severity

ERROR

Description

This message occurs when a CIFS share exceeds its maximum configured connection limit.

Corrective Action

Increase the "max-connections-per-share" limit using "vserver cifs share modify" command.

Syslog Message

CIFS share: %s of Vserver: %s hit its maximum connection limit.

Parameters

shareName (STRING): Name of the CIFS share that the user attempted to connect.
vserverName (STRING): Name for the Vserver associated with this operation.

nblade.showmountdisabled events

nblade.showmountdisabled

Severity

ERROR

Description

This message occurs when the "showmount" command is triggered by client, but the command is disabled on the NFS server. The "showmount" command enables NFS clients to see the Vserver's NFS exports list.

Corrective Action

Use the "nfs modify -showmount enabled" command to enable the feature. Use the "nfs show -fields showmount" command to verify that, if the showmount feature was enabled successfully on the NFS server.

Syslog Message

Showmount is disabled on Vserver %d.

Parameters

vserverid (INT): Identifier for the Vserver associated with this operation.

nblade.smb1onlyclientfound events

Nblade.smb1OnlyClientFound

Severity
NOTICE

Description
This message occurs when ONTAP® detects a client that supports only the SMB1 protocol. This message can help in identifying such clients and preparing for their upgrade to SMB2 or later before ONTAP deprecates the SMB1 version of the protocol.

Corrective Action
(None).

Syslog Message
For Vserver "%s", Data ONTAP® detected a client "%s" that supports only the SMB1 version of the protocol.

Parameters
vserverName (STRING): Vserver associated with this operation.
clientIp (STRING): IP address of the client.

nblade.smbsignaturemismatch events

Nblade.smbSignatureMismatch

Severity
ERROR

Description
This message occurs when the SMB signature sent by client does not match the SMB signature generated by the CIFS server.

Corrective Action
Ensure that the SMB client is authenticated in order to access the files. Alternatively, disable SMB signing.

Syslog Message
Client (protocol dialect: %s, IP: %s) sent an SMB signature that does not match the signature generated by the CIFS server: %s (Vserver: %s).

Parameters
SmbDialect (STRING): SMB protocol dialect negotiated by the client.
IpAddress (STRING): IP address of the client.
CifsServerName (STRING): Cifs server name of the client.
VserverName (STRING): Vserver name.

nblade.testevent events

Nblade.TestEvent

Severity

INFORMATIONAL

Description

This is a test EMS event generated by the Network Blade for functional verification only. No action is required.

Corrective Action

No corrective action is required. If this message is appearing without being intentionally triggered by the customer or by support activity, please contact support.

Syslog Message

The Network Blade kernel module has generated a test EMS event.

Parameters

(None).

nblade.tlsconfigerror events

Nblade.TLSConfigError

Severity

ERROR

Description

This message occurs when the client is trying to use NFS over TLS (Transport Layer Security), but it is disabled on the NFS server side.

Corrective Action

Enable the configuration by running "nfs tls interface enable" command.

Syslog Message

Failed to create NFS over TLS (Transport Layer Security) connection from client IP address:"%s", because NFS over TLS configuration not found for SVM:"%s", LIF:"%s".

Parameters

clientIpAddress (STRING): Client IP address.
vsName (STRING): Storage virtual machine (SVM) name.
lifIpAddress (STRING): LIF IP address of NFS server.

nblade.tlshandshakefailed events

Nblade.TLSHandshakeFailed

Severity

ERROR

Description

This message occurs when the NFS over TLS (Transport Layer Security) handshake fails between NFS client and NFS server.

Corrective Action

Verify the TLS configuration for the LIF, verify the health of the network and address issues on the network or the client. If the problem persists, contact NetApp technical support.

Syslog Message

Failed to complete TLS handshake for SVM:"%s", LIF:"%s", client IP address:"%s", NFS server certificate UUID:"%s".

Parameters

vsName (STRING): Storage virtual machine (SVM) name.
lifIpAddress (STRING): LIF IP address of NFS server.
remoteIpAddress (STRING): Client IP address.
certificateUuid (STRING): Universal unique identifier (UUID) of the TLS certificate of the NFS server (ONTAP).

nblade.vifdel events

Nblade.vifdel.ipRemoveFailed

Severity

ERROR

Description

This message occurs when there is a failure removing the IP address of a LIF that is being deleted. While this condition persists, most networking configuration or status operations can not be performed.

Corrective Action

A system reboot may be required if the operation did not complete successfully after it was retried. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. After the reboot is complete, issue a "giveback" command to return services to this partner.

Syslog Message

Error deleting IP address from LIF %d, error %d.

Parameters

lif (INT): LIF Id.
error (INT): Operation error code.

Nblade.vifdel.longRunning

Severity

ERROR

Description

This message occurs when there is an excessive delay in removing connections before LIF deletion can be completed. While this condition persists, most networking configuration or status operations can not be performed.

Corrective Action

A system reboot may be required if this message has occurred multiple times for the same LIF and the number of connections remaining has not decreased across these messages. In addition, network configuration and status commands are still not working. For HA configurations, operational disruption can be minimized by initiating a partner takeover followed by a reboot of this partner. Prior to reboot or takeover, a full autosupport must be generated for the affected node. This is done via the "autosupport invoke -type full" command. If possible, a sync core of the affected node should be provided to help find the root cause. A sync core can be generated via the "reboot -dump true" command for the affected node. After the reboot is complete, issue a "giveback" command to return services to this partner for HA configurations.

Syslog Message

Excessive delay while deleting connections on LIF %d, %d connections remaining.

Parameters

lif (INT): LIF Id.
remainingConns (INT): Number of connections still remaining on this LIF.

nblade.vldb events

Nblade.vldb.LeakedBladeList

Severity

NOTICE

Description

This message occurs when a protocol requests a list of blades but one cannot be generated due to one or more references to a previous request or requests still outstanding.

Corrective Action

If this condition is not cleared by a subsequent free message within 30 minutes, a reboot of the node might be required. Rebooting the node with the "system node reboot -dump true" command saves a core dump that allows diagnosis of this issue by NetApp technical support. For more information or assistance, contact NetApp technical support.

Syslog Message

"%s" operation issued by "%s" on cached volume location database (VLDB) blade list with references pending beyond expiry time.

Parameters

operation (STRING): Type of operation the caller is attempting.
caller (STRING): Caller that is trying to perform the operation.

Nblade.vldb.Timeout

Severity

ERROR

Description

This message occurs when a request from the network module to the volume location database (VLDB) times out. The VLDB is used to identify the node that currently controls a volume. This might be a transient condition. If the condition persists, some volumes might be inaccessible.

Corrective Action

Contact NetApp technical support.

Syslog Message

Request from the network module to the volume location database (VLDB) timed out.

Parameters

(None).

nblade.vscanbadipprivaccess events

Nblade.vscanBadIPPrivAccess

Severity

ERROR

Description

This message occurs during a client attempt to connect to the privileged ONTAP_ADMIN$ share, when the IP address of that client is not found in the list of allowed IP addresses.

Corrective Action

Ensure that the mentioned IP address is configured in one of the active vscan scanner pools. Use the "vserver vscan scanner pool show-active" command to view the currently active scanner pool configuration.

Syslog Message

For Vserver "%s", the attempt to connect to the privileged ONTAP_ADMIN$ share by the client "%s" using the logged-in user "%s" is rejected because its IP or hostname is not configured in any of the Vserver active scanner pools.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the client.
userName (STRING): Logged-in user of the client.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanbadprotomagicnum events

Nblade.vscanBadProtoMagicNum

Severity

ERROR

Description

This message occurs when an incorrectly formatted message is received from the AV Connector. This might result in delay or failure in AV scanning.

Corrective Action

Ensure that the compatible version of AV Connector is running on the AV server, and that no other user or software is attempting to connect to the "\\PIPE\vscan" resource on the Vserver.

Syslog Message

Data ONTAP® received incorrectly formatted message for Vserver "%s" from AV Connector running on the AV server "%s".

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the AV server.

nblade.vscanbaduserprivaccess events

Nblade.vscanBadUserPrivAccess

Severity

ERROR

Description

This message occurs during a client attempt to connect to the privileged ONTAP_ADMIN$ share, when the logged-in user of that client is not found in the list of allowed users.

Corrective Action

Ensure that the mentioned user name and IP address is configured in one of the active vscan scanner pools. Use the "vserver vscan scanner pool show-active" command to view the currently active scanner pool configuration.

Syslog Message

For Vserver "%s", the attempt to connect to the privileged ONTAP_ADMIN$ share by the client "%s" is rejected because its logged-in user "%s" is not configured in any of the Vserver active scanner pools.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the client.
userName (STRING): Logged-in user of the client.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanconnbackpressure events

Nblade.vscanConnBackPressure

Severity

ERROR

Description

This message occurs when an AV server is too busy to accept new scan requests.

Corrective Action

If this message occurs frequently, ensure that there are enough AV servers to handle the virus-scanning load being generated by the mentioned Vserver.

Syslog Message

For Vserver "%s", AV server "%s" is too busy to accept new scan requests.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the AV server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanconninactive events

Nblade.vscanConnInactive

Severity

NOTICE

Description

This message occurs when ONTAP® detects a nonresponsive antivirus (AV) server and forcibly closes its vscan connection.

Corrective Action

Ensure that the AV Connector, installed on the AV server, can connect to the Vserver and receive the scan requests.

Syslog Message

For Vserver "%s", ONTAP® forcibly closed the vscan connection originated from the nonresponsive AV server "%s".

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the AV server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanconninvaliduser events

Nblade.vscanConnInvalidUser

Severity

NOTICE

Description

This message occurs during a client attempt to establish a vscan connection, when the logged-in user of that client is not found in the list of allowed users.

Corrective Action

Ensure that the mentioned user name is configured in one of the active vscan scanner pools. Use the "vserver vscan scanner pool show-active" command to view the currently active scanner pool configuration.

Syslog Message

For Vserver "%s", the vscan connection request coming from client "%s" is rejected because the logged-in user "%s" is not configured in any of the Vserver active scanner pools.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the client attempting to establish a vscan connection.
userName (STRING): User name of the client attempting to establish a vscan connection.

nblade.vscanconnreqonsmb1 events

Nblade.vscanConnReqOnSMB1

Severity

ERROR

Description

This message occurs during a client attempt to establish a vscan connection over SMB1, which is not supported.

Corrective Action

Verify that both the client and Data ONTAP® support and are configured for SMB2 or later.

Syslog Message

For Vserver "%s", the vscan connection request coming from the client "%s" is rejected because it is not supported for SMB1.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the client.

nblade.vscanexcessivetos events

Nblade.vscanExcessiveTOs

Severity

ERROR

Description

This message occurs when ONTAP logs excessive timed-out scanning events which are due to delays in scanning response from the virus scanning (Vscan) server. Too many timed-out scanning events indicate that files are not being scanned in a timely manner.

Corrective Action

Investigate the Vscan server for timed-out scanning events to ascertain the root cause for the delays.

Syslog Message

Vscan timed-out scanning events exceeded %d in the last 30 minutes for Vscan server (IP: %s) in SVM "%s".

Parameters

ExcessiveVscanTimeOutsCount (INT): Threshold count for for the maximum number of timed-out scanning events that can occur within a 30 minute interval.
scannerIp (STRING): IP address of the Vscan server.
vserverName (STRING): Name of the SVM.

nblade.vscannodispatcher events

Nblade.vscanNoDispatcher

Severity

ALERT

Description

This message occurs when the vscan-dispatcher component cannot be created. This might be due to internal errors on the system, such as nonavailability of memory. This might cause data unavailability if the scan-mandatory option is enabled.

Corrective Action

Disable Vscan and enable it again by using the "vserver vscan disable/enable" command. If the problem persists, contact NetApp technical support.

Syslog Message

Vscan dispatcher component for Vserver "%s" could not be created. Error: %d.

Parameters

vserverName (STRING): Vserver associated with this operation.
errorCode (INT): Error code that describes the reason for the failure.

nblade.vscannopolicyenabled events

Nblade.vscanNoPolicyEnabled

Severity

ALERT

Description

This message occurs when a file access is not considered for virus scanning because none of the configured On-Access policies are enabled for the Vserver.

Corrective Action

Enable one of the configured On-Access policies for the Vserver.

Syslog Message

For Vserver "%s", the file access was not considered for virus scanning because none of the configured On-Access policies are enabled.

Parameters

vserverName (STRING): Vserver associated with this operation.

nblade.vscannoregdscanner events

Nblade.vscanNoRegdScanner

Severity

ERROR

Description

This message occurs when AV Connector notifies ONTAP® that it does not have a registered scan-engine. This could happen if the scan-engine never registered or unregistered because of some reason like it is misconfigured or shutdown. This might cause data unavailability if the scan-mandatory option is enabled.

Corrective Action

Ensure that the scan-engine software installed on the AV server is compatible with ONTAP®. Also ensure that it is running and is configred to connect to the AV Connector over local loopback.

Syslog Message

For Vserver "%s", AV Connector running on the AV server "%s" does not have a registered scan-engine to it.

Parameters

vserverName (STRING): Vserver associated with this operation.
scannerIp (STRING): IP address of the AV server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscannoscannerconn events

Nblade.vscanNoScannerConn

Severity

EMERGENCY

Description

This message occurs when ONTAP® has no vscan connection for servicing virus scan-requests. This might cause data unavailability if the scan-mandatory option is enabled.

Corrective Action

Ensure that the scanner pool is properly configured and the AV servers are active and connected to ONTAP.

Syslog Message

Vserver "%s" has no virus scanner connection.

Parameters

vserverName (STRING): Vserver associated with this operation.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanvirusdetected events

Nblade.vscanVirusDetected

Severity

ERROR

Description

This message occurs when a vscan server reports an error to the storage system. Normally this indicates that a virus has been found by the vscan server; however, other error conditions on the vscan server can result in this event. Client access to the file is denied. The vscan server might, depending on its settings and configuration, clean the file, quarantine it, or delete it.

Corrective Action

Check the log of the vscan (antivirus) server reported in the syslog message to see if it was able to successfully quarantine or delete the infected file. If it was not able to do so, a system administrator might want to manually delete the file.

Syslog Message

Possible virus detected. Vserver: %s, vscan server IP: %s, file path: %s, client IP: %s, SID: %s, vscan engine status: %u, vscan engine result string: %s.

Parameters

vserverName (STRING): Name of the Vserver associated with this operation.
vscanServerIp (STRING): IP address of the vscan server.
filePath (STRING): Path of the file that was found to be infected.
clientIp (STRING): IP address of the client.
SID (STRING): SID of the client.
vscanEngineStatus (INT): Status code returned by the vscan server.
vscanEngineResultString (STRING): Result string returned by the vscan server.
object_type (STRING): Type of the resource object under notification.
object_uuid (STRING): UUID of the resource object.

nblade.vscanworkqueueoverloaded events

Nblade.vscanWorkQueueOverloaded

Severity

NOTICE

Description

This message occurs when there are too many events being generated by the Vscan subsystem in ONTAP® software, which might be the result of a misconfigured Vscan server.

Corrective Action

Check the Vscan server configurations to make sure that there are no connectivity or configuration issues between the storage system and Vscan server. Use the "vserver vscan connection-status show-all" command to see the connection states of all configured Vscan servers.

Syslog Message

Too many events [%d] present in Vscan work queue.

Parameters

workQueueDepth (INT): Number of queued events waiting to be processed.

ndmp events

ndmp.ctrl events

ndmp.ctrl.on.e0m

Severity

ALERT

Description

This message occurs when the IP address of the logical interface (LIF) that hosts the NDMP control connection is hosted on maintenance port "e0M". This port does not provide sufficient bandwidth for NDMP.

Corrective Action

Ensure that the LIF is moved out of port "e0M" and hosted on a high bandwidth port, or use a LIF hosted on a high bandwidth port for the control connection.

Syslog Message

NDMP control connection is established on "%s" which is hosted on port "%s". This is a low bandwidth port and might impact performance.

Parameters

lif_addr (STRING): Local control connection IP address.
lif_port (STRING): Port on which the control connection IP address is hosted.

ndmp.data events

ndmp.data.on.e0m

Severity

ALERT

Description

This message occurs when the IP address of the logical interface (LIF) that hosts the NDMP data connection is hosted on maintenance port "e0M". This port does not provide sufficient bandwidth for NDMP.

Corrective Action

Ensure that the LIF is moved out of port "e0M" and hosted on a high bandwidth port, or create a new LIF hosted on a high bandwidth port which NDMP can use for the data connection.

Syslog Message

NDMP data connection is established on "%s" which is hosted on port "%s". This is a low bandwidth port and might impact performance.

Parameters

lif_addr (STRING): Local data connection IP address.
lif_port (STRING): Port on which the data connection IP address is hosted.

ndmp.fail events

ndmp.fail.log

Severity

ERROR

Description

This event is generated when there is an error in NDMP

Corrective Action

(None).

Syslog Message

Error message: %s

Parameters

Error_message (STRING): The error is hinted

ndmp.max events

ndmp.max.warning

Severity

NOTICE

Description

This message occurs when the maximum number of NDMP sessions has been reached.

Corrective Action

(None).

Syslog Message

Cannot accept new requests because the NDMP connection limit has been reached.

Parameters

(None).

ndmp.password events

ndmp.password.warning

Severity

ERROR

Description

This message occurs on NDMP service startup, when the password for the NDMP user account is still the
default password.

Corrective Action

Use the 'ndmpd password' command to change the default password.

Syslog Message

The NDMP user account has the default password set. Use the 'ndmp password' command to change the default password.

Parameters

(None).

ndo events

ndo.cr events

ndo.cr.canceled

Severity

NOTICE

Description

This message occurs when a controller replacement operation is canceled by the operator.

Corrective Action

(None).

Syslog Message

Controller replacement operation on node "%s" is canceled by the operator.

Parameters

nodeName (STRING): Name of the node that was being replaced when the operation was canceled.

ndo.cr.completed

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been completed successfully in the HA group.

Corrective Action

(None).

Syslog Message

Controller replacement operation completed. New node "%s" (model: %s), HA partner node "%s" (model: %s)

Parameters

newNodeName (STRING): Node name of the first new controller.
newModelName (STRING): Model name of the first new controller.
haNodeName (STRING): Node name of the new HA partner controller.
haModelName (STRING): Model name of the new HA partner controller.

ndo.cr.completed.firstNode

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been completed on the first node of the HA group.

Corrective Action

(None).

Syslog Message

Controller replacement operation completed on the first controller of the HA group. New node: %s (model: %s).

Parameters

nodeName (STRING): Node name of the new controller.
modelName (STRING): Model name of the new controller.

ndo.cr.nso.canceled

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been canceled.

Corrective Action

(None).

Syslog Message

NSO-based controller replacement operation was canceled from node: %s. Remote cluster node: %s, remote cluster HA partner node: %s.

Parameters

initiatingClusterNodeName (STRING): Name of the node from where controller replacement operation was canceled.
targetClusterNodeName (STRING): Node name of the controller that will be replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.

ndo.cr.nso.completed

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has completed.

Corrective Action

(None).

Syslog Message

NSO-based controller replacement operation completed. Initiating cluster node: %s, remote cluster node: %s (model: %s), remote cluster HA partner node: %s (model: %s).

Parameters

initiatingClusterNodeName (STRING): Node name of the controller that has initiated the upgrade.
newTargetClusterNodeName (STRING): Node name of the new controller.
newTargetClusterModelName (STRING): Model name of the new controller.
newTargetClusterHApartnerNodeName (STRING): Node name of the new HA partner controller.
newTargetClusterHApartnerModelName (STRING): Model name of the new HA partner controller.

ndo.cr.nso.mccip.canceled

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been canceled.

Corrective Action

(None).

Syslog Message

An NSO-based controller replacement operation was canceled in a MetroCluster IP configuration from node "%s". The remote cluster node is "%s", and the remote cluster HA partner node is "%s".

Parameters

initiatingClusterNodeName (STRING): Name of the node where the controller replacement operation was canceled.
targetClusterNodeName (STRING): Node name of the controller that was to be replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that was to be replaced.

ndo.cr.nso.mccip.completed

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has completed.

Corrective Action

(None).

Syslog Message

An NSO-based controller replacement operation completed in a MetroCluster IP configuration. The initiating cluster node is "%s", remote cluster node is "%s" (model "%s"), and the remote cluster HA partner node is "%s" (model "%s").

Parameters

initiatingClusterNodeName (STRING): Node name of the controller that initiated the controller replacement operation.
newTargetClusterNodeName (STRING): Node name of the new controller.
newTargetClusterModelName (STRING): Model name of the new controller.
newTargetClusterHApartnerNodeName (STRING): Node name of the new HA partner controller.
newTargetClusterHApartnerModelName (STRING): Model name of the new HA partner controller.

ndo.cr.nso.mccip.paused

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been paused.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

An NSO-based controller replacement operation was paused in a MetroCluster IP configuration from node "%s". The remote cluster node is "%s", and the remote cluster HA partner node is "%s".

Parameters

initiatingClusterNodeName (STRING): Name of the node from where the controller replacement operation was paused.
targetClusterNodeName (STRING): Node name of the controller that is being replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that is being replaced.

ndo.cr.nso.mccip.paused.error

Severity

ERROR

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration was paused due to an error.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Resolve the error. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

An NSO-based controller replacement operation has been paused in a MetroCluster IP configuration on node "%s" during a task "%s" due to the following error: %s.

Parameters

nodeName (STRING): Name of the node where the controller replacement operation was paused due to an error.

taskName (STRING): Name of the task.
taskReport (STRING): Detailed error report.

ndo.cr.nso.mccip.paused.userInput

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been paused for operator intervention.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Collect the requested information or perform the steps as mentioned in the "system controller replace show-details" command output. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

An NSO-based controller replacement operation from initiating node "%s" has been paused in a MetroCluster IP configuration. The remote cluster node "%s" and remote cluster HA partner node "%s" have been paused for operator interventio while performing a "%s" task during the "%s" phase.

Parameters

initiatingClusterNodeName (STRING): Name of the node where the controller replacement operation was initiated.
targetClusterNodeName (STRING): Node name of the controller that is being replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that is being replaced.
taskName (STRING): Name of the task where the controller replacement operation has been paused for operator intervention.
phaseInfo (STRING): Name of the phase where the controller replacement operation has been paused for operator intervention.

ndo.cr.nso.mccip.resumed

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been resumed.

Corrective Action

(None).

Syslog Message

An NSO-based controller replacement operation has been resumed in a MetroCluster IP configuration from node "%s". The remote cluster node is "%s", and the remote cluster HA partner node is "%s".

Parameters

initiatingClusterNodeName (STRING): Name of the node from where the controller replacement operation has been resumed.
targetClusterNodeName (STRING): Node name of the controller that is being replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that is being replaced.

ndo.cr.nso.mccip.started

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster IP configuration has been started.

Corrective Action

(None).

Syslog Message

An NSO-based controller replacement operation has been started in a MetroCluster IP configuration. The local cluster node is "%s", the remote cluster node is "%s" (model "%s"), and the remote cluster HA partner node is "%s" (model "%s").

Parameters

initiatingClusterNodeName (STRING): Node name of the controller that initiated the controller replacement operation.
targetClusterNodeName (STRING): Node name of the controller that will be replaced.
targetClusterModelName (STRING): Model name of the controller that will be replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.
targetClusterHApartnerModelName (STRING): Model name of the HA partner controller that will be replaced.

ndo.cr.nso.paused

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been paused.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

NSO-based controller replacement operation was paused from node: %s. Remote cluster node: %s, remote cluster HA partner node: %s.

Parameters

initiatingClusterNodeName (STRING): Name of the node from where the controller replacement operation was paused.
targetClusterNodeName (STRING): Node name of the controller that will be replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.

ndo.cr.nso.paused.error

Severity

ERROR

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been paused due to an error.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Resolve the error. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

NSO-based controller replacement operation has been paused on node "%s" during %s task due to an error: %s.

Parameters

nodeName (STRING): Name of the node where the controller replacement operation has been paused due to an error.
taskName (STRING): Name of the task.
taskReport (STRING): Detailed error report.

ndo.cr.nso.paused.userInput

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been paused for operator intervention.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Collect the requested information or perform the steps as mentioned in the "system controller replace show-details" command. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

NSO-based controller replacement operation from initiating node "%s" has been paused. Remote cluster node %s and remote cluster HA partner node %s are paused in %s task during %s phase for operator intervention.

Parameters

initiatingClusterNodeName (STRING): Name of the node where the controller replacement operation was initiated.

targetClusterNodeName (STRING): Node name of the controller that will be replaced.

targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.

taskName (STRING): NSO-based controller replacement operation from initiating node "%s" has been paused. Remote cluster node %s and remote cluster HA partner node %s are paused in %s task during %s phase for operator intervention

phaseInfo (STRING): Name of the phase where the controller replacement operation has been paused for operator intervention.

ndo.cr.nso.resumed

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been resumed.

Corrective Action

(None).

Syslog Message

NSO-based controller replacement operation has been resumed from node %s. Remote cluster node: %s, remote cluster HA partner node: %s.

Parameters

initiatingClusterNodeName (STRING): Name of the node from where the controller replacement operation has been resumed.

targetClusterNodeName (STRING): Node name of the controller that will be replaced.

targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.

ndo.cr.nso.started

Severity

NOTICE

Description

This message occurs when a controller replacement operation using negotiated switchover (NSO) in a MetroCluster FC configuration has been started.

Corrective Action

(None).

Syslog Message

NSO-based controller replacement operation has been started. Local cluster node: %s, remote cluster node: %s (model: %s), remote cluster HA partner node: %s (model: %s).

Parameters

initiatingClusterNodeName (STRING): Node name of the controller that has initiated the upgrade.
targetClusterNodeName (STRING): Node name of the controller that will be replaced.
targetClusterModelName (STRING): Model name of the controller that will be replaced.
targetClusterHApartnerNodeName (STRING): Node name of the HA partner controller that will be replaced.
targetClusterHApartnerModelName (STRING): Model name of the HA partner controller that will be replaced.

ndo.cr.paused

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been paused by the operator.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

Controller replacement operation on node "%s" is paused by the operator.

Parameters

nodeName (STRING): Name of the node where the replacement was in progress when the operation was paused.

ndo.cr.paused.error

Severity

ERROR

Description

This message occurs when the controller replacement operation has been paused due to an error.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Resolve the error. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

Controller replacement operation has been paused on node "%s" during %s task due to an error: %s.

Parameters

nodeName (STRING): Name of the node where the controller replacement operation has been paused due to an error.
taskName (STRING): Name of the task.
taskReport (STRING): Detailed error report.

ndo.cr.paused.userInput

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been paused for operator intervention.

Corrective Action

Use the "system controller replace show-details" command to check the status of the operation. Collect the requested information or perform the steps as mentioned in the "system controller replace show-details" command. Then, use the "system controller replace resume" command to resume the replacement operation.

Syslog Message

Controller replacement operation has been paused on node "%s" in "%s" task during "%s" phase for operator intervention.

Parameters

nodeName (STRING): Name of the node where the controller replacement operation has been paused for operator intervention.
taskName (STRING): Name of the task where the controller replacement operation has been paused for operator intervention.
phaseInfo (STRING): Name of the phase where the controller replacement operation has been paused for operator intervention.

ndo.cr.resumed

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been resumed by the operator.

Corrective Action

(None).

Syslog Message

Controller replacement operation has been resumed on node "%s" by the operator.

Parameters

nodeName (STRING): Name of the node where the controller replacement operation has been resumed.

ndo.cr.started

Severity

NOTICE

Description

This message occurs when a controller replacement operation has been started in the HA group by the operator.

Corrective Action

(None).

Syslog Message

Controller replacement operation has been started. Node "%s" (model: %s), HA partner node "%s" (model: %s).

Parameters

nodeName (STRING): Node name of the controller that will be replaced.
modelName (STRING): Model name of the controller that will be replaced.
haNodeName (STRING): Node name of the HA partner controller that will be replaced.
haModelName (STRING): Model name of the HA partner controller that will be replaced.

net events

net.cg events

net.cg.backpressureEntered

Severity

NOTICE

Description

This message occurs when the current connection group experiences backpressure. The client workload is distributed among connection groups. If a connection group has too much work waiting to be processed, incoming packets will be dropped. If one connection group experiences backpressure, it might indicate an imbalance that could affect the subset of clients using that connection group. If all connection groups are experiencing backpressure, it might indicate that the workload is nearing the capacity of the storage controller.

Corrective Action

Use the "statistics show -raw -object cgstat -counter is_backpressured" command to monitor the connection group backpressure status. Use the "statistics show -raw -object cgstat -counter bkp_exited" command to monitor the connection group backpressure rate. Use the "statistics show -raw -object cgstat -counter bkp_ipv4_drops" and "statistics show -raw -object cgstat -counter bkp_ipv6_drops" commands to monitor packet drops due to the connection group backpressure. Adjust the workload or increase the capacity to avoid over-utilization.

Syslog Message

Connection group "%d" experienced backpressure %d times.

Parameters

connection_group (INT): Connection group which dropped packets due to backpressure.
count (INT): Number of times the current connection group experienced backpressure.

net.cg.ratelimited

Severity

NOTICE

Description

This message occurs when the rate of incoming traffic exceeds the threshold limit of the current connection group. The client workload is distributed among connection groups. If a connection group is receiving certain kinds of packets at a rate exceeding the allowed threshold, those incoming packets will be dropped. Packets subject to rate limits include UDP, ICMP, IP fragments, broadcast, and multicast. If a connection group is receiving packets at a rate that exceeds its threshold, the storage controller might be experiencing a packet storm.

Corrective Action

Use the "statistics show -raw -object cgstat -counter ratelimit_icmp", "statistics show -raw -object cgstat -counter ratelimit_bcast", "statistics show -raw -object cgstat -counter ratelimit_frag", "statistics show -raw -object cgstat -counter ratelimit_udp", and "statistics show -raw -object cgstat -counter ratelimit_other" commands to monitor packets that are being dropped because they are being received by the connection group at a rate that exceeds the threshold limit. Use packet traces to determine if there is a packet storm or

network misconfiguration causing packets not intended for consumption by the storage controller to be sent to the connection group. If using NFS-over-UDP, adjust the workload or increase the capacity to avoid over-utilization.

Syslog Message

"%s traffic received by connection group "%d" was received at a rate that exceeded the threshold limit.

Parameters

reason (STRING): The type of packets the current connection group received at a rate greater than its threshold limit.
connection_group (INT): Connection group which dropped packets because it received them at a rate greater than its threshold limit.

net.cg.utilThresholdExceed

Severity

NOTICE

Description

This message occurs when the current connection group utilization exceeds the configured threshold. The client workload is distributed among connection groups. If one connection group utilization is much higher than the others, it might indicate an imbalance that could affect the subset of clients using that connection group. If all connection groups are experiencing high utilization, it might indicate that the workload is nearing the capacity of the storage controller.

Corrective Action

Use the "statistics show -raw -object nwk_ctx -counter utilization" command to monitor the connection group utilization. Adjust the workload or increase the capacity to avoid over-utilization.

Syslog Message

Utilization of connection group "%d" (%d%%) exceeds the configured threshold (%d%%).

Parameters

connection_group (INT): Connection group whose utilization exceeded the configured threshold.
current_utilization (INT): Current connection group utilization.
configured_threshold (INT): Configured connection group utilization threshold.

net.fib events

net.fib.createfailed

Severity

ERROR

Description

This message occurs when a Vserver resource allocation fails. This leaves the system with an unusable Vserver, and additional Vservers cannot be created. This might also lead to system performance degradation.

Corrective Action

Delete the Vserver created by using the "vserver delete" command. Use the diagnostic privilege "debug

smdb table vserver_by_name show" command to determine the Vserver name corresponding to the ID. You must delete the other associated entities, such as LIFs and volumes, before deleting a Vserver.

Syslog Message

Resource allocation for Vserver (ID: %d) failed.

Parameters

vsid (INT): Vserver ID.

net.fib.nearinglimit

Severity

NOTICE

Description

This message occurs when Vserver resources have reached 90% and will soon be exhausted. When the resources are exhausted, additional Vservers cannot be created. The system will function normally with respect to other Vservers.

Corrective Action

Check for configured Vservers by using the "vserver show" command, and delete unused Vservers by using the "vserver delete" command. You must delete the the the other associated entities, such as LIFs and volumes, before deleting a Vserver.

Syslog Message

Vserver resource allocation is nearing the limit.

Parameters

(None).

net.ifconfig events

net.ifconfig.addLimitExceed

Severity

ERROR

Description

This message occurs when the limit for adding logical virtual local area network (VLAN) and interface group (ifgrp) interfaces is exceeded. The latest attempt to add an interface did not succeed.

Corrective Action

Delete any existing unused VLAN or ifgrp interface and retry adding the new logical interface.

Syslog Message

The limit for adding logical virtual local area network (VLAN) and interface group (ifgrp) interfaces is exceeded. The maximum limit per host is %d.

Parameters

maxlimitperhost (INT): Maximum interfaces per host.

net.ifconfig.ioctlError

Severity

NOTICE

Description

This event is generated when the ifconfig command encounters an error while attempting to perform an ioctl.

Corrective Action

(None).

Syslog Message

ioctl error encountered while configuring interface '%s' using ioctl '%s' (error string='%s', error code=%d).

Parameters

ifname (STRING): The name of the interface
ioctl (STRING): The name of the ioctl
errorString (STRING): The error string
error (INT): The internal error code

net.ifgrp events

net.ifgrp.addLimitExceeded

Severity

ERROR

Description

This message occurs when the system fails to create a new interface group because the number of such groups already present on the node exceed either the number of physical ports on the node or the upper bound on number of interface groups supported.

Corrective Action

Delete any existing unused interface groups and retry adding the new interface group. Use the "network port ifgrp delete" and "network port ifgrp create" commands, respectively, to do so.

Syslog Message

ifgrp %s could not be created because the limit for logical interface groups on this node has been reached. The limit per node is equal to the number of physical ports present on the node with an upper bound of %d.

Parameters

vifName (STRING): Name of the interface group that could not be created.
maxIfgrp (INT): Upper bound on number of interface groups supported.

net.ifgrp.lacp.key.mismatch

Severity

ERROR

Description

This message occurs when ONTAP receives differing system-ID or keys information from the Link Aggregation Control Protocol (LACP) peer, leading to one or more interfaces not being active in the port interface group (ifgrp). This can indicate a configuration error at the LACP peer.

Corrective Action

Search the knowledgebase of the NetApp technical support support web site for the "LACP port down due to mismatched peer keys" phrase.

Syslog Message

Partner mismatch occured on ifgrp "%s", port "%s". Expected by aggregate: system-priority "0x%02x", system-ID "%s", and key "0x%04x". Found at Port: system-priority "0x%02x", system-ID "%s", and key "0x%04x".

Parameters

ifgrpName (STRING): Name of the ifgrp.
portName (STRING): Name of the ifgrp member-port.
aggregateSysPriority (INT): Ifgrp aggregate system priority.
aggregateSysMAC (STRING): Ifgrp aggregate system MAC address.
aggregateKey (INT): Ifgrp aggregate key.
portSysPriority (INT): Ifgrp member-port system priority.
portSysMAC (STRING): Ifgrp member-port system MAC address.
portKey (INT): Ifgrp member-port key.

net.ifgrp.lacp.link.active

Severity

NOTICE

Description

This message occurs when a link in an Link Aggregation Control Protocol (LACP) aggregate becomes active.

Corrective Action

(None).

Syslog Message

ifgrp %s, port %s has transitioned to the active state.

Parameters

aggregateName (STRING): Name of the interface group.
portName (STRING): Name of the member port.

net.ifgrp.lacp.link.inactive

Severity

ERROR

Description

This message occurs when a link is operationally up, but becomes inactive in the Link Aggregation Control Protocol (LACP) aggregate with which it has been associated. This can occur due to a configuration, software, or link error, or a hardware failure.

Corrective Action

Search kb.netapp.com for "How to troubleshoot LACP port channel groups".

Syslog Message

ifgrp %s, port %s has transitioned to an inactive state. The interface group is in a degraded state.

Parameters

aggregateName (STRING): Name of the interface group.
portName (STRING): Name of the member port.

net.ipsconfig events

net.ipsconfig.failed

Severity

ALERT

Description

This message occurs when creation of an IPspace fails. This failure leaves the system with an unusable IPspace.

Corrective Action

Delete the IPspace reporting the failure by using the "ipspace delete" command. Use the (privilege: diag) "debug smdb table ipspaces_byname show" command to find the mapping from the ID reported in the event to the IPspace name required to delete this IPspace.

Syslog Message

IPspace (%d) needs to be deleted because configuration (%s) failed with error (%s).

Parameters

ipsid (INT): IPspace ID.
configuration (STRING): Configuration attempted.
error (STRING): Error returned.

net.static events

net.static.hostroute.replaced

Severity

NOTICE

Description

This event is generated when user configured static host route entry being replaced with a dynamic entry by route redirect message.

Corrective Action

(None).

rtredirect_fib: User static route to destination(%s) through gateway(%s) being redirected to new gateway(%s)

Parameters

Dest (STRING): IP address of the destination.
OldGW (STRING): IP address of the old gateway.
NewGW (STRING): IP address of the new gateway.

net.vserverupdatefailure events

net.vServerUpdateFailure

Severity

NOTICE

Description

This message occurs when a node cannot be updated with Vserver configuration. This can result in that node not being able to host LIFs.

Corrective Action

(None).

Syslog Message

Unable to update node %s with current Vservers.

Parameters

remote_node (STRING): Node being updated.

net.vserverupdatesuccess events

net.vServerUpdateSuccess

Severity

NOTICE

Description

This message occurs when the Vserver configuration on a node is successfully updated after a previous failure.

Corrective Action

(None).

Syslog Message

Vserver configuration is successfully updated on node %s.

Parameters

remote_node (STRING): Node that was updated.

netgroup events

netgroup.files events

netgroup.files.missing

Severity

ERROR

Description

This message occurs when a netgroup lookup request finds that files is specified as a ns-switch source, but a netgroup file cannot be found.

Corrective Action

Check that the local netgroup file is present and load it if necessary. The commands to perform this are "vserver services netgroup load" and "vserver services netgroup status".

Syslog Message

Netgroup file missing for Vserver "%s" during lookup for netgroup "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netgroup.ldap events

netgroup.ldap.byhost.missing

Severity

INFORMATIONAL

Description

This message occurs when netgroup.byhost is disabled in the Lightweight Directory Access Protocol (LDAP) client configuration on the storage system, and LDAP is configured as an ns-switch source for the Vserver. Enabling netgroup.byhost enables mount operations to succeed faster when the netgroup size is large.

Corrective Action

Consider configuring the netgroup.byhost database on the LDAP server and enabling netgroup.byhost on the LDAP client configuration on the storage system by using the "ldap client modify" command.

Syslog Message

LDAP client config has netgroup.byhost disabled for Vserver "%s" during lookup for netgroup "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netgroup.ldap.config

Severity
ERROR

Description
This message occurs when a netgroup lookup request finds that Lightweight Directory Access Protocol (LDAP) is specified as a ns-switch source, but LDAP is not configured for the Vserver. Netgroup lookups using LDAP will not function.

Corrective Action
Check the ns-switch sources configured for the netgroup database using "vserver services name-service ns-switch show" and the LDAP configuration for the Vserver using "ldap show" and "ldap client show". Either remove LDAP as a ns-switch source, or configure LDAP.

Syslog Message
LDAP configuration issues found for Vserver "%s" during lookup for netgroup "%s".

Parameters
vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netgroup.nis events

netgroup.nis.byhost.decode

Severity
ERROR

Description
This message occurs when the netgroup.byhost remote procedure call to the Network Information Service (NIS) server returns a response that cannot be decoded.

Corrective Action
Check the netgroup byhost database on the NIS server for lines that have more than 1024 characters.

Syslog Message
NIS server returned an undecodable response for Vserver "%s" during lookup for netgroup "%s".

Parameters
vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netgroup.nis.byhost.missing

Severity
INFORMATIONAL

Description
This message occurs when the netgroup.byhost map is not configured on the Network Information Service (NIS) server and NIS is configured as a ns-switch source for the Vserver. Enabling netgroup.byhost enables

mount operations to succeed faster when the netgroup size is large.

Corrective Action

Consider configuring the netgroup.byhost map on the NIS server to gain better performance with netgroups.

Syslog Message

NIS server missing netgroup.byhost map for Vserver "%s" during lookup for netgroup "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netgroup.nis.config

Severity

ERROR

Description

This message occurs when a netgroup lookup request finds that Network Information Service (NIS) is specified as a ns-switch source, but NIS is not configured for the Vserver. Netgroup lookups using NIS will not function.

Corrective Action

Check the ns-switch sources configured for the netgroup database using "vserver services name-service ns-switch show" and the NIS configuration for the Vserver using "nis-domain show". Either remove NIS as a ns-switch source, or configure NIS.

Syslog Message

NIS configuration issues found for Vserver "%s" during lookup for netgroup "%s".

Parameters

vserver (STRING): Name of the Vserver on which the problem is occurring.
netgroup (STRING): Name of the netgroup for the lookup request.

netif events

netif.autonegfailed events

netif.autoNegFailed

Severity

ERROR

Description

This message occcurs when autonegotiation fails and the interface is operating at half-duplex, which might not be the desired mode.

Corrective Action

Verify that autonegotiation is enabled on the switch or device to which the interface is connected. Or, if the desired speed is 10 or 100 Mbps, disable autonegotiation on the interface by setting the mediatype.

Syslog Message

Autonegotiation failed, interface %s operating at %d Mbps half-duplex.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".
speed (INT): Speed used by the interface.

netif.badeeprom events

netif.badEeprom

Severity

EMERGENCY

Description

This message occurs when the network interface has an electronically erasable programmable read-only memory (EEPROM) with a bad cyclic redundancy check (CRC) or media access control (MAC) address.

Corrective Action

Replace the component associated with the network interface (PCIe card or controller motherboard).

Syslog Message

Network interface %s has an EEPROM with a bad CRC or MAC address.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.badoversizepacket events

netif.badOversizePacket

Severity

ERROR

Description

This message occurs when the network interface card (NIC) receives a bad oversize packet.

Corrective Action

Try a different switch port.

Syslog Message

Bad oversize packet received on network interface %s. Check for NIC receive errors (CRC, runts, fragments). Might indicate a bad switch port.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.cpreventcompleted events

netif.cprEventCompleted

Severity

INFORMATIONAL

Description

This message occurs when a CPR Event (core PCI resiliency) has completed.

Corrective Action

PCI reset has occurred automatically to correct.

Syslog Message

CPR Event (core PCI resiliency) completed on network interface %s and the count since boot is %d.

Parameters

ifname (STRING): Name of network interface.
count (INT): Number of times a CPR Event (core PCI resiliency) has been completed since boot.

netif.cpreventdetected events

netif.cprEventDetected

Severity

INFORMATIONAL

Description

This message occurs when a CPR Event (core PCI resiliency) is detected.

Corrective Action

PCI reset will occur automatically to correct.

Syslog Message

CPR Event (core PCI resiliency) detected on network interface %s and the count since boot is %d.

Parameters

ifname (STRING): Name of network interface.
count (INT): Number of times CPR Event (core PCI resiliency) has occurred since boot.

netif.cprmaxeventsreached events

netif.cprMaxEventsReached

Severity

ERROR

Description

This message occurs when the maximum number of CPR Events (core PCI resiliency) has occurred since boot.

Corrective Action

Replace the failing hardware.

Syslog Message

Replace hardware — maximum number of CPR Events (core PCI resiliency) since boot has occurred on network interface %s.

Parameters

ifname (STRING): Name of network interface.

netif.eepromreadfailed events

netif.eepromReadFailed

Severity

ERROR

Description

This message occurs when there is a failure in reading the electronically erasable programmable read-only memory (EEPROM) for a network interface. The interface is not initialized.

Corrective Action

Rebooting the system might clear the problem. The problem might be caused by a software bug and should be reported to NetApp technical support.

Syslog Message

Failure in reading EEPROM for network interface %s.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.excesslinkinterrupts events

netif.excessLinkInterrupts

Severity

ERROR

Description

This message occurs when excessive link status change interrupts occur on the network interface. One or two events might indicate a momentary glitch on the link, but many events might indicate a bad switch port, cable, or network interface card (NIC).

Corrective Action

Try using a different switch port and cable. If the problem persists, replace the NIC.

Syslog Message

Excessive link status change interrupts occurred on network interface %s.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.fatal events

netif.fatal.err

Severity

ALERT

Description

This message occurs when the network device's driver encounters an error from which it cannot recover.

Corrective Action

Replace the network interface card.

Syslog Message

The network device in slot %d encountered fatal error %s.

Parameters

slot (INT): Slot number.
info (STRING): Device specific information

netif.fwupdatefailed events

netif.fwUpdateFailed

Severity

ERROR

Description

This message occurs when there is an error during a network interface firmware update.

Corrective Action

In very rare cases, a firmware update failure might leave the interface inoperable. If the driver initialization routine subsequently fails and logs a message, the motherboard or card might need to be replaced. For more information or assistance, contact NetApp technical support.

Syslog Message

Firmware update of network interface %s to version %s failed :%s.

Parameters

ifName (STRING): Name of the network interface.
version (STRING): Version of the firmware update.
reason (STRING): Reason for the firmware update failure.

netif.fwupdatestatus events

netif.fwUpdateStatus

Severity

NOTICE

Description

This message occurs to indicate the status of a network interface firmware update.

Corrective Action

(None).

Syslog Message

Firmware update of network interface %s to version %s %s.

Parameters

ifName (STRING): Name of the network interface.
version (STRING): Version of firmware update.
status (STRING): Status of firmware update process (started or completed)

netif.hangdetected events

netif.hangDetected

Severity

ERROR

Description

This message occurs when a network interface driver detects that an interface is hung.

Corrective Action

If hardware is reset and there are no further hangs, no corrective action is required. Otherwise, if the system reports frequent hangs, a core dump is forced, or no action is taken by the driver, contact NetApp technical support.

Syslog Message

Network interface %s hung (%s). %s. Driver: %s.

Parameters

ifName (STRING): Name of the network interface: for example, "e4a".
hangType (STRING): Type of hang. For example, "transmit", "PCIe RcvMstAbt".
recoveryAction (STRING): Action, if any, that will be taken by the driver to recover. For example, "Resetting to recover" or "Forcing panic for core dump" (for root cause analysis).
driver (STRING): Driver name.

netif.hn events

netif.hn.setDataPathFailure

Severity

ERROR

Description

This message occurs when Hyper-V virtual NIC fails to switch the data path from a Physical Function (PF) vPort to a Virtual Function (VF) vPort or vice-versa when accelerated networking is enabled on the virtual NIC. When the data path switch fails, the traffic might or might not continue to flow through existing path. If no traffic flows, then it can result in a complete outage on the LIFs hosted by the virtual NIC.

Corrective Action

Redeploy the CVO instance on another host machine. If the problem persists, contact NetApp technical support.

Syslog Message

%s: Failed to set data path to %s. Error: %d.

Parameters

ifName (STRING): Name of the network interface.
path (STRING): Data path: synthetic (via PF) or virtual (via VF).
error (INT): Failure to set data path.

netif.hv events

netif.hv.heartbeatFail

Severity

ERROR

Description

This message occurs when the heartbeat between hypervisor and the guest virtual machine (VM) fails. There is no functional impact but the resource health in the Azure portal for this VM shows as unavailable.

The heartbeat is restored after reboot of the VM or detach and attach of heartbeat device.

Corrective Action

Reboot the Cloud Volumes ONTAP (CVO) instance or run the following two commands from BSD systemshell using diagnostic privilege: sudo devctl disable hvheartbeat0 sudo devctl enable hvheartbeat0 If the problem persists, contact NetApp technical support.

Syslog Message

Failed to respond to heartbeat message from the hypervisor.

Parameters

(None).

netif.init events

netif.init.failed

Severity

ALERT

Description

This message occurs when initialization of a network interface failed due to an unexpected software error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Initialization of network interface %s failed due to unexpected software error %s:%d.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".
module (STRING): Name of the software module or driver.
error (INT): Module-specific error code.

netif.linkdown events

netif.linkDown

Severity

INFORMATIONAL

Description

This message occurs when a network link goes down or the interface is not operational when first configured up.

Corrective Action

If the message describes the link as "down," check the cabling and switch port configuration. If the message states "controller initialization failure", report this to NetApp technical support.

Syslog Message

%s %s: Link %s.

Parameters

lanType (STRING): Local area network (LAN) type.
ifName (STRING): Name of the network interface.
status (STRING): Brief information about the problem.

netif.linkerrors events

netif.linkErrors

Severity

ERROR

Description

This message occurs when the driver detects an excessive link error rate. Link errors are cyclic redundancy checks (CRC), runt frames, fragment, jabber, and alignment errors. Use the 'ifstat' command to display counts.

Corrective Action

Verify that the cable is securely connected at both ends. Verify that both devices are configured the same with respect to autonegotiation, speed, and duplex. If the problem persists, there might be bad hardware at one end, or a bad cable or connector.

Syslog Message

Excessive link errors on network interface %s. Might indicate a bad cable, switch port, or NIC, or that a cable connector is not fully inserted in a socket. On a 10/100 port, might indicate a duplex mismatch.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.linkinfo events

netif.linkInfo

Severity

INFORMATIONAL

Description

This message occurs when a network interface is reset by the software or is configured down by the administrator.

Corrective Action

(None).

Syslog Message

%s %s: Link %s.

Parameters

> **lanType** (STRING): Local area network (LAN) type.
> **ifName** (STRING): Name of the network interface.
> **info** (STRING): Brief description of the event.

netif.linkup events

netif.linkUp

Severity

> INFORMATIONAL

Description

> This message occurs when the state of a network link changes to "up".

Corrective Action

> (None).

Syslog Message

> %s %s: Link %s.

Parameters

> **lanType** (STRING): Local area network (LAN) type.
> **ifName** (STRING): Name of the network interface.
> **status** (STRING): Status of the link, "up".

netif.nicnotsupported events

netif.nicNotSupported

Severity

> ERROR

Description

> This message occurs when the installed network interface card (NIC) version is not supported.

Corrective Action

> Replace the NIC with one purchased from NetApp.

Syslog Message

> The NIC in slot %d is not supported. The %s is not supported.

Parameters

> **slot** (INT): Slot number of the NIC.
> **reason** (STRING): Specific reason the NIC is not supported.

netif.overtemperror events

netif.overTempError

Severity

EMERGENCY

Description

This message occurs when a network port is too hot or a sensor has malfunctioned. Depending on how the port is deployed, the failure may disrupt user data access, node access or cluster communication.

Corrective Action

Ensure adequate cooling and ventilation is available. If that does not resolve the issue, replace the failed card.

Syslog Message

Network port %s is over temperature.

Parameters

ifName (STRING): Name of the network port: for example, "e4a".

netif.phynotread events

netif.phyNotRead

Severity

ERROR

Description

This message occurs when the system cannot read identification information from the physical layer (PHY) of a network interface. This might be caused by a software bug or hung hardware, and the link might not come up.

Corrective Action

If the link does not come up, power-cycle (not just reboot) the system. If the link still does not come up, replace the motherboard or network interface card, depending on the location of the interface.

Syslog Message

Cannot read PHY for network interface %s, status mask=0x%llx.

Parameters

ifName (STRING): Name of the network interface, for example, "e8a".
statusMask (LONGINTHEX): Technical information about the event for Data ONTAP® developers.

netif.phyoperationfailed events

netif.phyOperationFailed

Severity

ERROR

Description

This message occurs when there is a failure in reading or writing the physical layer (PHY) of a network interface.

Corrective Action

This might be caused by a software bug. If there are problems with the interface after seeing this message, replace the component associated with the network interface (PCIe card or controller motherboard). If the problem persistis, contact NetApp technical support.

Syslog Message

Failure in reading or writing PHY for network interface %s. Driver=%s, error=%d, regaddr=0x%x, command=0x%x, status=0x%x.

Parameters

ifName (STRING): Name of the network interface; for example, "e2a".
driver (STRING): Driver name.
error (INT): Error code.
regaddr (INTHEX): PHY register address.
command (INTHEX): PHY command.
status (INTHEX): PHY status.

netif.phyread events

netif.phyRead

Severity

ERROR

Description

This message occurs when there is a failure in reading the physical layer (PHY) of a network interface.

Corrective Action

This might be caused by a software bug. If there are problems with the interface after seeing this message, contact NetApp technical support.

Syslog Message

Failure in reading PHY for network interface %s.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".

netif.ratelimitthreshold events

netif.rateLimitThreshold

Severity

ERROR

Description

This message occurs when the protocol rate threshold is reached on a network interface.

Corrective Action

Fix the faulty network configuration or incorrect setup that enables a sudden spike in broadcast packets to bring down the node. If you still want a high ARP rate threshold, use the "bootarg.arp.ratelimit.threshold" boot argument to set that threshold.

Syslog Message

High rate limit on network interface %s for broadcast protocol %s being detected: %d pkts/sec.

Parameters

ifName (STRING): Name of the network interface that reached the protocol rate threshold.
protocol (STRING): Name of the broadcast protocol that overloaded the network.
packetRate (INT): Observed incoming packet rate per second on the interface.

netif.sfpeventerrorcode events

netif.sfpEventErrorCode

Severity

ERROR

Description

This message occurs when the installed Small Form-factor Pluggable (SFP+ or QSFP+) module is either not supported or faulty.

Corrective Action

The cable could be unsupported or faulty. Replace the cable and check the switch port configuration for errors.

Syslog Message

Unsupported or faulty transceiver or cable in port %s. Error :%s.

Parameters

ifName (STRING): Name of the network interface.
error_string (STRING): module event error string.

netif.sfpnotsupported events

netif.sfpNotSupported

Severity

ERROR

Description

This message occurs when the installed Small Form-factor Pluggable (SFP+ or QSFP+) module is not supported.

Corrective Action

Replace the SFP+ or QSFP+ module with one purchased from NetApp for this interface.

Syslog Message

The SFP+ or QSFP+ module (%s %s) installed in %s is not supported with this network interface.

Parameters

sfpVendor (STRING): SFP+ or QSFP+ vendor name.
sfpPn (STRING): SFP+ or QSFP+ part number.
ifName (STRING): Name of the network interface; for example, "e2a".

netif.speeddowngraded events

netif.speedDowngraded

Severity

ERROR

Description

This message occcurs when the interface is operating at a lower speed than expected.

Corrective Action

The physical connection may be faulty. Replace the cable and check the switch port configuration for errors.

Syslog Message

Interface %s operating at %d Mbps. This might occur due to faulty cable, faulty switch hardware, or faulty switch software.

Parameters

ifName (STRING): Name of the network interface.
speed (INT): Speed used by the interface.

netif.speednotsupported events

netif.speedNotSupported

Severity

ERROR

Description

This message occurs when a network interface autonegotiates to an unsupported speed.

Corrective Action

Connect to 1 or 10 gigabits per second (Gbps) switch port.

Syslog Message

Autonegotiation on network interface %s resolved to speed %d. This speed is not supported.

Parameters

ifname (STRING): Name of network interface.
speed (INT): Speed in megabits per second (Mbps).

netif.tcp events

netif.tcp.conn.bad.checksum

Severity

ERROR

Description

This message occurs when a bad checksum is detected in the incoming TCP packets.

Corrective Action

If experiencing network issues, corrupted TCP packets might be an issue. Check the network components along the path of TCP connection.

Syslog Message

TCP packet with bad checksum detected on port %s. The packet arrived on connection with source address %s and destination_address %s.

Parameters

local_port (STRING): Ethernet port where the TCP bad checksum packets were detected.
source_address (STRING): Source IP address of the connection.
destination_address (STRING): Destination IP address of the connection.

netif.toomanynics events

netif.tooManyNics

Severity

ERROR

Description

This message occurs when a network interface was not initialized because the number of interfaces of this type exceeds the maximum supported.

Corrective Action

Remove a network interface card (NIC).

Syslog Message

Network interface %s was not initialized because the number of interfaces of this type exceeds the maximum (%d) supported.

Parameters

ifName (STRING): Name of the network interface; for example, "e8a".
maxIf (INT): Maximum number of interfaces of this type that is supported.

netif.uncoreccerror events

netif.uncorEccError

Severity

EMERGENCY

Description

This message occurs when the network interface controller reports an unrecoverable ECC error.

Corrective Action

Reboot the controller. If the problem persists, replace the component associated with the network interface (PCIe card or controller motherboard). If the problem persists, contact NetApp technical support.

Syslog Message

Unrecoverable ECC error on network interface %s.

Parameters

ifName (STRING): Name of the network interface; for example, "e4a".

netif.unknownswrequest events

netif.unknownSwRequest

Severity

ERROR

Description

This message occurs when a network driver does not recognize a request from another software module, possibly because the request is invalid.

Corrective Action

Power-cycle the controller; a reboot is not sufficient. If the problem persists, contact NetApp technical support.

Syslog Message

Software module %s was passed unknown %s %d for %s.

Parameters

driver (STRING): Driver module reporting the error.
object (STRING): Name of the requested object.
value (INT): Value that is not recognized.
ifName (STRING): Name of the network interface.

netinet events

netinet.ethr events

netinet.ethr.arpstorm

Severity

ERROR

Description

This message occurs when a high arrival rate of address resolution protocol (ARP) frames has been detected (possible ARP storm). This condition can indicate a possible network configuration issue.

Corrective Action

If you are experiencing network issues, an ARP storm might be a concern. Confirm the ARP storm event is valid and check the network configuration.

Syslog Message

The node detected a possible ARP storm on port %s. Detected rate: %d packets per second.

Parameters

port_name (STRING): Port where the possible ARP storm was detected.
rate_count (LONGINT): ARP arrival rate seen at the port where the possible ARP storm was detected.

netinet.ethr.broadcstAddr

Severity

ERROR

Description

This message occurs when the system finds that the Ethernet address for the IP address is found to be a broadcast address.

Corrective Action

(None).

Syslog Message

ARP: Ethernet address is a broadcast address for IP address %s!

Parameters

ipAddress (STRING): IP address in Standard Internet dotted notation.

netinet.ethr.dup.clustIP

Severity

EMERGENCY

Description

This message occurs when a new node that is trying to join the cluster is using the same IP address that is configured on this node's cluster interface. This can prevent data from being served to clients and

potentially bring down the entire cluster.

Corrective Action

Use the Ethernet (MAC) address with the "network port show -mac <mac>" command to find the network port. Use the "network interface show -curr-port <port>" command to identify the cluster interface that is configured with the duplciate IP address. Remove the LIF on the cluster interface of the new node in the cluster network by using the "net int delete -vserver <vserver_name> -lif <lif_name>" command. After removing the LIF, assign a new, unique IP address to the cluster interface.

Syslog Message

Duplicate IP address %s (Ethernet MAC: %s) configured on the cluster network.

Parameters

ipaddr (STRING): Duplicate IP address that was detected on the cluster network.
ethaddr (STRING): Ethernet (MAC) address that uniquely identifies the node configured with the duplicate IP address.

netinet.ethr.duplct.ipAdrr

Severity

ERROR

Description

This message occurs when another system is detected using an IP address configured on this system.

Corrective Action

The Ethernet address uniquely identifies the other system that is using the IP address. If you are using static IP addresses, change the IP address configured on one of the systems. If DHCP is in use on the network, ensure that the static IP address is not in the range being used by the DHCP server.

Syslog Message

Duplicate IP address %s!! sent from Ethernet address: %s.

Parameters

ipaddr (STRING): IP address.
ethaddr (STRING): Ethernet address.

netinet.icmp events

netinet.icmp.redirect

Severity

NOTICE

Description

This message occurs when an ICMPv4 redirect message is received. The redirect might be received due to either a misconfigured route or a man-in-the-middle ICMP redirect attack.

Corrective Action

When enabled, ICMP redirects can be disabled using the "network tuning icmp modify -is-drop-redirect -enabled true" command. However, disabling ICMP redirects might lead to connectivity problems or longer

delays of data transfers.

Syslog Message

Received %lu ICMPv4 redirect messages for IPspace "%s".

Parameters

no_of_redirects (LONGINT): Total number of ICMPv4 redirects received for the specific IPspace.
ipspace (STRING): The IPspace for which the redirect packets are received.

netinet6 events

netinet6.frag events

netinet6.frag.bytes.overlap

Severity

ERROR

Description

This message occurs when the incoming fragment overlaps some of the existing previous fragment in the reassembly queue.

Corrective Action

(None).

Syslog Message

%d bytes of a fragment from %s overlapped the %s fragment

Parameters

bytes (INT): Number of bytes.
ipAddress (STRING): Printable that is loggable representation of IP address.
message (STRING): String passed as "previous" or "succeeding".

netinet6.icmp events

netinet6.icmp.chksum

Severity

ERROR

Description

This message occurs when the system receives an Internet Control Message Protocol(ICMP) message, and while processing the ICMP message it finds a checksum error.

Corrective Action

(None).

Syslog Message

ICMP6 checksum error (%d|%x) %s.

Parameters

icmpType (INT): ICMP header type field.
checksum (INTHEX): Checksum value.
ipAddress (STRING): Printable that is a loggable representation of IP address.

netinet6.icmp.redirect

Severity

NOTICE

Description

This message occurs when an ICMPv6 redirect message is received. The redirect might be received due to either a misconfigured route or a man-in-the-middle ICMP redirect attack.

Corrective Action

When enabled, ICMP redirects can be disabled using the "network tuning icmp6 modify -is-v6-redirect -accepted false" command. However, disabling ICMP redirects might lead to connectivity problems or longer delays of data transfers.

Syslog Message

Received %lu ICMPv6 redirect messages for IPspace "%s".

Parameters

no_of_redirects (LONGINT): Total number of ICMPv6 redirects received for the specific IPspace.
ipspace (STRING): The IPspace for which the redirect packets are received.

netinet6.icmp.reject.equal

Severity

ERROR

Description

This message occurs when the system rejects a redirect because both router case and on-link destination case are equal.

Corrective Action

(None).

Syslog Message

ICMP6 redirect rejected; neither router case nor onlink case: %s.

Parameters

addressBuff (STRING): Contains IP6 addresses.

netinet6.icmp.reject.length

Severity

INFORMATIONAL

Description

This message occurs when there is a lladdrlen mismatch for the specified IP6 address.

Corrective Action

(None).

Syslog Message

icmp6_redirect_input: lladdrlen mismatch for %s (if %d, icmp6 packet %d): %s.

Parameters

ip6address (STRING): Printable that is a loggable representation of the IP address.
mediaAddrlen (INT): Media address length.
lladdrlen (INT): Address length.
addressBuff (STRING): Contains IP6 addresses.

netinet6.icmp.reject.link

Severity

ERROR

Description

This message occurs when the system rejects an Internet Control Message Protocol6 (ICMP6) redirect.

Corrective Action

(None).

Syslog Message

ICMP6 redirect sent from %s rejected;It must be from the linklocal address.

Parameters

ipAddress (STRING): Printable that is a loggable representation of the IP address.

netinet6.icmp.reject.ndopt

Severity

INFORMATIONAL

Description

This message occurs because of invalid neighbor discovery options.

Corrective Action

(None).

Syslog Message

icmp6_redirect_input: Invalid neighbor discovery option, rejected: %s.

Parameters

addressBuff (STRING): Contains IP6 addresses.

netinet6.in6 events

netinet6.in6.invlid.prfxLen1

Severity

ERROR

Description

This message occurs because of equal prefix length.

Corrective Action

(None).

Syslog Message

in6_are_prefix_equal: Invalid prefix length (%d).

Parameters

prfxLen (INT): Prefix length.

netinet6.in6.invlid.prfxLen2

Severity

ERROR

Description

This message occurs because of invalid prefix length.

Corrective Action

(None).

Syslog Message

in6_prefixlen2mask: Invalid prefix length (%d).

Parameters

prfxLen (INT): Prefix length.

netinet6.input events

netinet6.input.addr.notReady

Severity

INFORMATIONAL

Description

This message occurs when the destination address is not ready, so the packet is discarded.

Corrective Action

(None).

Syslog Message

ip6_input: packet was sent to an unready address %s→%s.

Parameters

srcAddr (STRING): Source IP6 address.
dstAddr (STRING): Destination IP6 address.

netinet6.input.opt.payload

Severity

ERROR

Description

This message occurs when the length of the payload option in the header is inconsistent.

Corrective Action

(None).

Syslog Message

Length of jumbopayload option is inconsistent(%d).

Parameters

option (INT): Length of option.

netinet6.input.opt.rtrAlert

Severity

ERROR

Description

This message occurs when the length of the router alert option in the header is inconsistent.

Corrective Action

(None).

Syslog Message

Length of router alert option is inconsistent(%d).

Parameters

option (INT): Length of option.

netinet6.mld6 events

netinet6.mld6.illegal.type

Severity

ERROR

Description

This message occurs when the system discovers an illegal Internet Control Message Protocol (ICMP) type field in a multicast listener discovery structure.

Corrective Action

(None).

Syslog Message

mld6_input: Illegal ICMP type field (%d).

Parameters

type (INT): ICMP type field.

netinet6.mld6.srcAdr.invld

Severity

ERROR

Description

This message occurs during validation of the source address, when the system finds that the source address is a non-linked local address.

Corrective Action

(None).

Syslog Message

mld6_input: Source address %s is not link-local.

Parameters

srcAddr (STRING): Source IP6 address.

netinet6.nbr events

netinet6.nbr.bad.addr

Severity

ERROR

Description

This message occurs when ONTAP receives unexpected Neighbor Discovery (ND) packets. The packets could come from various sources, but usually they come from a source IP address. The EMS message shows the information from the packet. If something specific is wrong, another EMS message with more information will display with this EMS message.

Corrective Action

ONTAP received an invalid Neighbor Discovery (ND) packet. If the condition persists, check your network infrastructure, such as switches, routers, or other connected equipment.

Syslog Message

nd6_ns_input: src=%s, dst=%s, tgt=%s.

Parameters

srcIpAddress (STRING): Source IPv6 address.
dstIpAddress (STRING): Destination IPv6 address.
tgtIpAddress (STRING): Target IPv6 address.

netinet6.nbr.bad.tgtAddr

Severity

INFORMATIONAL

Description

This message occurs when the target address packet is found to be multicast.

Corrective Action

(None).

Syslog Message

nd6_ns_input: Bad NS target (multicast).

Parameters

(None).

netinet6.nbr.badDstAddr.pkt1

Severity

INFORMATIONAL

Description

This message occurs when the destination address packet is bad due to a wrong destination IP6 address.

Corrective Action

(None).

Syslog Message

nd6_ns_input: Bad DAD packet (wrong ip6 dst).

Parameters

(None).

netinet6.nbr.badDstAddr.pkt2

Severity

INFORMATIONAL

Description

This message occurs when the destination address packet is bad due to link-layer address option.

Corrective Action

(None).

Syslog Message

nd6_ns_input: Bad DAD packet (link-layer address option).

Parameters

(None).

netinet6.nbr.dad.complete

Severity

ALERT

Description

This message occurs when Duplicate address Detection (DAD) for the specified interface address is completed, and duplicate address is found.

Corrective Action

(None).

Syslog Message

%s: DAD complete for %s - duplicate found.

Parameters

ifAddress (STRING): Interface address.
ip6address (STRING): Printable that is a loggable representation of the IP address.

netinet6.nbr.dad.ignrNS

Severity

INFORMATIONAL

Description

This message occurs when Duplicate address Detection (DAD) ignores Neighbor Solicitation (NS) packet for the specified interface address.

Corrective Action

(None).

Syslog Message

nd6_dad_ns_input: Ignoring DAD NS packet for address %s(%s).

Parameters

targetAddress (STRING): Printable that is loggable representation of target IPv6 address.
ifAddress (STRING): Interface address.

netinet6.nbr.dad.memAlcFail

Severity

ALERT

Description

This message occurs when Duplicated Address Detection (DAD) is started and memory allocated fails for the specified interface address.

Corrective Action

(None).

Syslog Message

nd6_dad_start: Memory allocation failed for %s(%s).

Parameters

ip6address (STRING): Printable that is a loggable representation of an IP6 address.
ifAddress (STRING): Interface address.

netinet6.nbr.dad.timeout

Severity

NOTICE

Description

This message occurs during Duplicated Address Detection (DAD), when number of tries or count to transmit DAD packet exceeds the predefined maximum number of tries.

Corrective Action

(None).

Syslog Message

%s: could not run DAD, driver or link problem?

Parameters

ifAddress (STRING): Interface address.

netinet6.nbr.dadtmr.duplcAdr

Severity

NOTICE

Description

This message occurs when Duplicated Address Detection (DAD) timer is called, and the parameter passed to it, is a duplicated interface address.

Corrective Action

(None).

Syslog Message

nd6_dad_timer: Called with duplicated address %s(%s).

Parameters

ip6address (STRING): Printable that is a loggable representation of an IP6 address.
ifAddress (STRING): Interface address.

netinet6.nbr.dadTmr.nTntvAdr

Severity

NOTICE

Description

This message occurs when Duplicated Address Detection (DAD) Timer is called with non tentative interface address.

Corrective Action

(None).

Syslog Message

nd6_dad_timer: Called with non-tentative address %s(%s).

Parameters

ip6address (STRING): Printable that is a loggable representation of an IP6 address.
ifAddress (STRING): Interface address.

netinet6.nbr.dadtmr.nullPrm

Deprecated

Deprecated as of Data ONTAP 9.8 since this EMS is no longer needed.

Severity

NOTICE

Description

This message occurs when Duplicated Address Detection (DAD) timer is called and the interface address passed to it is NULL.

Corrective Action

(None).

Syslog Message

nd6_dad_timer: Called with null parameter.

Parameters

(None).

netinet6.nbr.duplcte.taddr

Severity

ALERT

Description

This message occurs when there is a duplicate target IP6 address.

Corrective Action

(None).

Syslog Message

nd6_na_input: Duplicate IP6 address %s.

Parameters

targetAddress (STRING): Printable that is a loggable representation of target IP6 address.

netinet6.nbr.duplcteSrc.addr

Severity

INFORMATIONAL

Description

This message occurs when there is duplicate source IP6 address.

Corrective Action

(None).

Syslog Message

nd6_ns_input: Duplicate IP6 address %s.

Parameters

srcAddress (STRING): Printable that is a loggable representation of source IP6 address.

netinet6.nbr.invld.ndOpt1

Severity

INFORMATIONAL

Description

This message occurs because of invalid Neighbor Discovery (ND)option.

Corrective Action

(None).

Syslog Message

nd6_ns_input: Invalid ND option; ignored.

Parameters

(None).

netinet6.nbr.invld.ndOpt2

Severity

INFORMATIONAL

Description

This message occurs because of an invalid Neighbour Discovery (ND) option during neighbor advertising input handling.

Corrective Action

(None).

Syslog Message

nd6_na_input: Invalid ND option; ignored.

Parameters

(None).

netinet6.nbr.invld.tgtAddr

Severity

NOTICE

Description

This message occurs during Neighbor Advertising (NA)input handling, because of invalid target address.

Corrective Action

(None).

Syslog Message

nd6_na_input: Invalid target address %s.

Parameters

targetAddress (STRING): Target IP6 address.

netinet6.nbr.manl.intvtnReq

Severity

ERROR

Description

This message occurs when 'dad_duplicated' is called and manual intervention is required.

Corrective Action

(None).

Syslog Message

%s: Manual intervention required.

Parameters

ifAddress (STRING): Interface address.

netinet6.nbr.misMth.lladrln1

Severity

INFORMATIONAL

Description

This message occurs when there is a lladdrlen mismatch for the specified IP6 address.

Corrective Action

(None).

Syslog Message

nd6_ns_input: lladdrlen mismatch for %s (if %d, NS packet %d).

Parameters

ip6address (STRING): Printable that is a loggable representation of an IP address.
ifAddrlen (INT): Interface address length.
lladdrlen (INT): Address length.

netinet6.nbr.misMth.lladrln2

Severity

INFORMATIONAL

Description

This message occurs during Neighbor Advertising (NA) input handling, when there is a lladdrlen mismatch for the specified IP6 address.

Corrective Action

(None).

Syslog Message

nd6_na_input: lladdrlen mismatch for %s (if %d, NA packet %d).

Parameters

ip6address (STRING): Printable that is a loggable representation of target IP address.
ifAddrlen (INT): Interface address length.
lladdrlen (INT): Address length.

netinet6.nbr.solAdv.mlticstd

Severity

NOTICE

Description

This message occurs during Neighbor Advertising(NA) input handling, as solicited advertising is multicast.

Corrective Action

(None).

Syslog Message

nd6_na_input: A solicited advertising is multicast.

Parameters

(None).

netinet6.nd6 events

netinet6.nd6.setmtu.small

Severity

NOTICE

Description

This message occurs when the port MTU (Maximum Transmission Unit) is set to a smaller value than the IPv6 minimum MTU of 1280. If you set the port MTU value to less than 1280, which is not recommended, IPv6 packets larger than the set value cannot be sent from or received by the controller.

Corrective Action

Use the 'broadcast-domain modify' command with the '-mtu' option to increase MTU of all ports in the domain to at least the IPv6 minimum MTU of 1280.

Syslog Message

nd6_setmtu: new port MTU '%lu' on the port '%s' is too small for IPv6.

Parameters

linkmtu (LONGINT): Configured MTU value for the port.
ifName (STRING): Name of the port on which the MTU is being set.

netinet6.rtr events

netinet6.rtr.high.mtu

Severity

INFORMATIONAL

Description

This message occurs when the Maximum Transmission Unit (MTU) size of the Router Advertisement (RA) message, sent from the specified source IPv6 address, is higher than the upper bound of the Link MTU.

Corrective Action

(None).

Syslog Message

nd6_ra_input: MTU option mtu=%d sent from %s; exceeds the maxmtu %d on '%s'; ignoring.

Parameters

mtu (INT): MTU size.
ip6Address (STRING): Printable that is a loggable representation of the source IPv6 address.
maxmtu (INT): Upper bound of the Link MTU.
ifName (STRING): Interface name.

netinet6.rtr.invld.ndOpt1

Severity

INFORMATIONAL

Description

This message occurs because of an invalid Neighbor Discovery(ND) option.

Corrective Action

(None).

Syslog Message

nd6_rs_input: Invalid ND option; ignored.

Parameters

(None).

netinet6.rtr.invld.ndOpt2

Severity

INFORMATIONAL

Description

This message occurs because of an invalid Neighbor Discovery(ND) option in the receiving Router Advertising (RA)message.

Corrective Action

(None).

Syslog Message

nd6_ra_input: Invalid ND option; ignored.

Parameters

(None).

netinet6.rtr.invld.optLength

Severity

INFORMATIONAL

Description

This message occurs because of an invalid option length for a prefix information option, when receiving a Router Advertising (RA)message. The option length must be equal to 4. This invalid option length is ignored.

Corrective Action

(None).

Syslog Message

nd6_ra_input: Invalid option length %d for prefix information option; ignored.

Parameters

optLength (INT): Option length.

netinet6.rtr.invld.prefix

Severity

INFORMATIONAL

Description

This message occurs because of an invalid prefix in the prefix information structure, when receiving Router Advertising(RA) message.

Corrective Action

(None).

Syslog Message

nd6_ra_input: Invalid prefix %s; ignored.

Parameters

    prefix (STRING): Prefix.

netinet6.rtr.invld.prfxLen1

Severity

    INFORMATIONAL

Description

    This message occurs because of an invalid prefix length for prefix information option, when receiving Router Advertising(RA) message. The prefix length must be less than 128.

Corrective Action

    (None).

Syslog Message

    nd6_ra_input: Invalid prefix length %d for prefix information option; ignored.

Parameters

    prfxLength (INT): Prefix length.

netinet6.rtr.low.mtu

Severity

    INFORMATIONAL

Description

    This message occurs when the Maximum Transmission Unit (MTU) size is lower than 1,280, which is the minimal MTU and reassembly size.

Corrective Action

    (None).

Syslog Message

    nd6_ra_input: MTU option mtu=%d sent from %s is less than the minimum Link MTU on '%s'; ignoring.

Parameters

    mtu (INT): MTU size.
    ip6Address (STRING): Printable that is a loggable representation of the source IPv6 address.
    ifName (STRING): Interface name.

netinet6.rtr.misMth.lladrln1

Severity

    INFORMATIONAL

Description

    This message occurs when there is a lladdrlen mismatch for the specified IP6 address of the Router Solicitation (RS) packet.

Corrective Action

(None).

Syslog Message

nd6_rs_input: lladdrlen mismatch for %s (if %d, RS packet %d).

Parameters

ip6address (STRING): Printable that is a loggable representation of source IPv6 address.
ifAddrlen (INT): Interface address length.
lladdrlen (INT): Address length.

netinet6.rtr.misMth.lladrln2

Severity

INFORMATIONAL

Description

This message occurs when there is a lladdrlen mismatch for the specified IPv6 address of the Router
Advertising (RA) packet.

Corrective Action

(None).

Syslog Message

nd6_ra_input: lladdrlen mismatch for %s (if %d, RA packet %d).

Parameters

ip6address (STRING): Printable that is a loggable representation of source IPv6 address.
ifAddrlen (INT): Interface address length.
lladdrlen (INT): Address length

netinet6.rtr.srcAdr.invld

Severity

NOTICE

Description

This message occurs during the validation of source address in the received Router Solicitation (RS)
message, when it is found that the source address is a non-link local address.

Corrective Action

(None).

Syslog Message

nd6_ra_input: Source %s is not a link-local address.

Parameters

srcAddr (STRING): Source IPv6 address.

netport events

netport.eth events

netport.eth.discovered

Severity

NOTICE

Description

This message occurs when a physical network port has been discovered.

Corrective Action

(None).

Syslog Message

Physical network port %s (node %s) has been discovered.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.

netport.pvlan events

netport.pvlan.created

Severity

NOTICE

Description

This message occurs when a pseudo-VLAN port has been created.

Corrective Action

(None).

Syslog Message

Pseudo-VLAN port "%s" was created on node "%s".

Parameters

port (STRING): Name of the pseudo-VLAN port.
node (STRING): Name of the node on which the pseudo-VLAN port resides.

nfs events

nfs.client events

nfs.client.cache.modify.err

Severity

ERROR

Description

This message occurs when an NFS connected client's cache settings are changed using the REST API "/api/protocol/nfs/connected-client-settings", but the value is not updated in the network component. This might lead to the cache refresh behavior not working as expected.

Corrective Action

Use the REST API PATCH "/api/protocol/nfs/connected-client-settings" to update the value.

Syslog Message

Connected-clients cache settings could not be updated. Error: %s.

Parameters

reason (STRING): Reason for the failure.

nfs.krb events

nfs.krb.lif.disabled

Severity

ALERT

Description

This message occurs when a Kerberos-enabled LIF in a Vserver shares NFS Kerberos credentials with a LIF in another Vserver. NFS Kerberos is automatically disabled by Data ONTAP® on LIFs that share Kerberos credentials across Vservers, because of the security violation this causes. Disabling Kerberos on a LIF can cause service disruption to NFS clients that use these LIFs, mounted using the '-sec=krb5' option.

Corrective Action

NFS Kerberos has been automatically disabled by Data ONTAP on the LIF because it shared Kerberos credentials with another Vserver, causing a security violation. NFS Kerberos can be reenabled using the command: "vserver nfs kerberos interface enable". During the reenable process, Kerberos credential sharing across Vservers is disallowed.

Syslog Message

NFS Kerberos disabled on LIF "%s" with SPN "%s" for Vserver "%s" due to a security conflict with another Vserver. NFS Kerberos can be reenabled using the command: "vserver nfs kerberos interface enable".

Parameters

lif (STRING): Name of the LIF on which NFS Kerberos is disabled.
spn (STRING): The service principal name associated with the LIF.
vserver (STRING): Name of the Vserver that owns the LIF.

nfs.tlscreateatnbladefailed events

Nfs.TLSCreateAtNbladeFailed

Severity

ERROR

Description

This message occurs when the creation of TLS (Transport Layer Security) configuration fails at network component for NFS.

Corrective Action

Disable TLS and enable again with the help of command "nfs tls interface".

Syslog Message

Failed to replicate TLS (Transport Layer Security) configuration at network component for SVM:"%s", LIF:"%s", Certificate UUID:"%s".

Parameters

vsName (STRING): Storage virtual machine (SVM name.
lifIpaddress (STRING): LIF IP.
certificateUuid (STRING): Universal unique identifier (UUID) of TLS certificate.

nis events

nis.active events

nis.active.false.removed

Severity

NOTICE

Description

This message occurs when the last system to be upgraded in a cluster removes NIS configurations that were marked as inactive.

Corrective Action

(None).

Syslog Message

All NIS configurations with the "-active" parameter set to "false" were removed.

Parameters

(None).

nis.db events

nis.db.job.queue.failure

Severity

ERROR

Description

This message occurs when the NIS group database job queue fails.

Corrective Action

Use the "vserver services name-service nis-domain group-database build" command to queue the NIS database job.

Syslog Message

NIS group database job queue failed for Vserver %s.

Parameters

vserver_name (STRING): Name of the Vserver.

nis.group events

nis.group.db.build.failure

Severity

ERROR

Description

This message occurs when the NIS group database build fails.

Corrective Action

Ensure that the configured NIS domain is reachable and bound. Ensure that the number of characters per record in the NIS server for group database does not exceed 1,024. Run the "vserver services name-service nis-domain group-database build" command to build the NIS group database again.

Syslog Message

Failed to build the NIS group database for Vserver %s. Error: %s.

Parameters

vserver_name (STRING): Name of the Vserver.
error_string (STRING): Error encountered while building the NIS group database.

nis.group.db.build.success

Severity

NOTICE

Description

This message occurs when the NIS group database build is successful.

Corrective Action

(None).

Syslog Message

NIS group database is successfully built for Vserver %s.

Parameters

vserver_name (STRING): Name of the Vserver.

nis.netgrp events

nis.netgrp.db.build.failure

Severity

ERROR

Description

This message occurs when the Network Information Service (NIS) netgroup database build fails.

Corrective Action

Ensure that the configured NIS domain is reachable for the SVM and bound. Ensure that the number of characters per record in the NIS server for the netgroup database does not exceed 1,024. See the ONTAP® 9 Documentation Center for managing NIS domains.

Syslog Message

Failed to build the NIS netgroup database for Vserver "%s". Error: %s.

Parameters

vserver_name (STRING): Name of the Vserver.
error_string (STRING): Error encountered while building the NIS netgroup database.

nis.netgrp.db.build.success

Severity

NOTICE

Description

This message occurs when the Network Information Service (NIS) netgroup database build is successful.

Corrective Action

(None).

Syslog Message

NIS netgroup database is successfully built for Vserver "%s".

Parameters

vserver_name (STRING): Name of the Vserver.

nis.netgrp.db.job.kick.fail

Severity

ERROR

Description

This message occurs when the system fails to run the NIS netgroup.byhost database job. The NIS netgroup.byhost database available on the local system is not refreshed. The subsequent netgroup-by-host query might return outdated information.

Corrective Action

Use the (privilege: advanced) "vserver services name-service nis-domain netgroup-database build" command to run the NIS netgroup database job.

Syslog Message

NIS netgroup database job run failed for Vserver %s.

Parameters

vserver_name (STRING): Name of the Vserver.

nis.netgrp.db.job.queue.fail

Severity

NOTICE

Description

This message occurs when the system fails to queue the NIS netgroup.byhost database job. The NIS netgroup.byhost database is not available on the local system. The subsequent netgroup-by-host query will be fetched from the external NIS server.

Corrective Action

(None).

Syslog Message

NIS netgroup database job queue failed for Vserver %s.

Parameters

vserver_name (STRING): Name of the Vserver.

nis.server events

nis.server.active

Severity

INFORMATIONAL

Description

This message occurs when the Storage Virtual Machine (SVM, formerly Vserver) binds to any of the configured NIS servers.

Corrective Action

(None).

Syslog Message

SVM '%s' has successfully bound to the %s NIS server.

Parameters

vserver_name (STRING): Name of the SVM.
nis_server (STRING): Configured NIS server.

nis.server.inactive

Severity

ERROR

Description

This message occurs when one of the NIS servers configured for a Storage Virtual Machine (SVM, formerly Vserver) cannot be contacted.

Corrective Action

From a UNIX ® workstation, make sure that the NIS server is responding to requests. Also make sure that the portmapper on the NIS server is responding to requests. Make sure that there are no networking issues stopping the cluster from communicating with this NIS server.

Syslog Message

%s NIS server configured for SVM '%s' cannot be contacted.

Parameters

nis_server (STRING): Configured NIS server.
vserver_name (STRING): Name of the SVM.

nis.server.invalid.domain

Severity

ERROR

Description

This message occurs when the Network Information Service (NIS) servers configured for a storage virtual machine (SVM, formerly Vserver) cannot be contacted due to "Invalid Domain" error.

Corrective Action

Make sure that the NIS server with the correct domain is configured.

Syslog Message

%s NIS server configured for SVM '%s' cannot be contacted due to "Invalid Domain" error.

Parameters

nis_server (STRING): Configured NIS server.
vserver_name (STRING): Name of the SVM.

nis.server.not.available

Severity

ERROR

Description

This message occurs when none of the NIS servers configured for a Storage Virtual Machine (SVM, formerly Vserver) can be contacted.

Corrective Action

From a UNIX ® workstation, make sure that the NIS server is responding to requests. Also make sure that the portmapper on the NIS server is responding to requests. Make sure that there are no networking issues stopping the cluster from communicating with this NIS server.

Syslog Message

None of the NIS servers configured for SVM '%s' can be contacted.

Parameters

vserver_name (STRING): Name of the SVM.

no events

no.halt events

no.halt.brokenDisk

Severity

ALERT

Description

This message occurs when the option raid.timeout is set to 0 or if the option hasn't been set by the user, disabling automatic shutdown on a disk failure.

Corrective Action

Add an appropriate spare disk.

Syslog Message

%s in RAID group "%s" %s broken. Automatic system shutdown has been disabled.

Parameters

type (STRING): Type of disk.
rgname (STRING): RAID group name.
verb (STRING): Failed disk verb.

no.halt.brokenDisk.notice

Severity

NOTICE

Description

This message occurs when a node is in a degraded state because of a broken disk, but the option raid.timeout is set to 0 or its value hasn't been modified by the user, disabling automatic shutdown on a disk failure. Shutdown is to encourage you to replace broken disks. This message occurs on a capacity-optimized platform with broken disks irrespective of the value of the option raid.timeout.

Corrective Action

Consult other logged messages or use the "storage disk show -broken" command to determine the identity of broken disks. Remove any broken disks. Automatic system shutdown can be enabled by altering the "raid.timeout" value using the "storage raid-options modify" command. NOTE: The option "raid.timeout" will not affect the automatic shutdown on a capacity-optimized platform.

Syslog Message

%s. automatic system shutdown is disabled. Replace the disk immediately.

Parameters

type (STRING): Type of degradation.

no.halt.nvramLowBatt.info

Severity

ALERT

Description

This message occurs when the option raid.timeout has been set to 0, disabling automatic shutdown on a low NVRAM Battery condition.

Corrective Action

Replace the NVRAM battery. Automatic system shutdown can be enabled by altering the "raid.timeout" value using the "storage raid-options modify" command.

Syslog Message

Automatic system shutdown is disabled. If the NVRAM battery is dangerously low, replace it immediately.

Parameters

(None).

no.halt.nvramLowBatteries

Severity

ALERT

Description

This message occurs when the option raid.timeout is set to 0, disabling automatic shutdown on a low NVRAM Batteries condition.

Corrective Action

Replace the NVRAM batteries.

Syslog Message

NVRAM batteries are dangerously low. Automatic system shutdown is disabled. Replace the batteries immediately!

Parameters

(None).

no.halt.nvramLowBattery

Severity

ALERT

Description

This message occurs when the option raid.timeout is set to 0, disabling automatic shutdown on a low NVRAM Battery condition.

Corrective Action

Replace the NVRAM battery.

Syslog Message

NVRAM battery is dangerously low. Automatic system shutdown is disabled. Replace the battery immediately!

Parameters

(None).

no.halt.nvramLowBatts.info

Severity

NOTICE

Description

This message occurs when the option raid.timeout has been set to 0, disabling automatic shutdown on a low NVRAM Batteries condition.

Corrective Action

Replace the NVRAM batteries. Automatic system shutdown can be enabled by altering the "raid.timeout" value using the "storage raid-options modify" command.

Syslog Message

Automatic system shutdown is disabled. If the NVRAM batteries are dangerously low, we encourage you to replace it immediately.

Parameters

(None).

noderun events

noderun.login events

noderun.login.success

Severity

INFORMATIONAL

Description

This message occurs when a cluster user successfully logs in to the node using the 'run' command.

Corrective Action

(None).

Syslog Message

'%s' logged in from cluster: '%s'.

Parameters

user (STRING): Name of the user who logged in to the node.
cluster (STRING): Cluster name from where the user logged in to the node.

nodewatchdog events

nodewatchdog.config events

nodewatchdog.config.invalid

Severity

ERROR

Description

This message occurs when bootarg.nodewatchdog.level is set to an invalid value. This can only be done manually. When an invalid value is set, Node Watchdog reverts to the default behavior.

Corrective Action

Set bootarg.nodewatchdog.level to a valid value at the LOADER> prompt, or modify the value by using the "system node watchdog modify" command.

Syslog Message

The value of bootarg.nodewatchdog.level is set to an invalid value, "%s." Node Watchdog reverted to the default behavior (%s).

Parameters

bootarg (STRING): Value of bootarg.nodewatchdog.level.
defaultVal (STRING): Default value of bootarg.nodewatchdog.level.

nodewatchdog.gfc events

nodewatchdog.gfc.too.long

Severity

ALERT

Description

This message occurs when the storage system is low in networking buffers (mbuf) for longer than the duration threshold, which indicates abnormal circumstances. When this happens, CLI commands might hang, and clients could experience timeouts.

Corrective Action

If CLI commands are responding slowly or clients are timing out, reboot the node using the "reboot -node [node] -dump true" option. Also call the support team to investigate further, because this is an abnormal circumstance that might recur if not addressed. Contact NetApp technical support.

Syslog Message

Networking buffer depletion detected. Consumption exceeded %d%% in use and did not recede to %d%% for %d seconds.

Parameters

enter_percentage (INT): Percentage of in-use mbufs necessary to enter the flow control state.
exit_percentage (INT): Percentage of in-use mbufs necessary to exit the flow control state.
duration (INT): Duration for which there is a scarcity of available mbufs.

nodewatchdog.node events

nodewatchdog.node.failure

Severity

EMERGENCY

Description

This message occurs when Data ONTAP® experiences a prolonged outage of internal services critical to continued data service. The node experiencing this failure might operate in a degraded mode until the condition is addressed. Data ONTAP will attempt to recover by restarting the affected process.

Corrective Action

The affected process may produce a core file which can be analyzed. Contact NetApp technical support if the condition persists and possible analysis of the core file.

Syslog Message

Data ONTAP has experienced a serious internal error: %s. This might cause the node experiencing the problem to become unresponsive to data access.

Parameters

condition (STRING): Condition that caused the failure.
diagnosis (STRING): List of system diagnoses that could cause node watchdog issues.

nodewatchdog.node.longreboot

Severity

ALERT

Description

This message occurs when a node fails to reboot within the configured time allowed for rebooting.

Corrective Action

Contact NetApp technical support.

Syslog Message

Data ONTAP has experienced a serious internal error. The node experiencing this problem is unable to reboot within it's allotted time of %d seconds causing it to be unavailable. The node has been panicked to enable it to recover.

Parameters

timeout (INT): The time in seconds within which reboot did not complete.

nodewatchdog.node.panic

Severity

ALERT

Description

This message occurs when Data ONTAP® experiences a prolonged outage of internal services critical to continued data service. The node has been restarted to recover from the condition.

Corrective Action

Contact NetApp technical support for additional assistance.

Syslog Message

Data ONTAP has experienced a serious internal error: %s. This might cause the node experiencing the problem to become unresponsive to data access. %s

Parameters

condition (STRING): Condition that caused the failure.
action (STRING): Automatic corrective action taken (or why avoided) as a result of detecting this condition.
diagnosis (STRING): List of system diagnoses that could cause node watchdog issues.

nodewatchdog.node.ucore.hung

Severity

ALERT

Description

This message occurs when a node fails to generate an application core within the time allotted for application coredump due to a serious internal error. The node is panicked to recover from the internal error.

Corrective Action

Contact NetApp technical support.

Syslog Message

Unable to generate an application core for %s (pid %d) within the allotted time of %d seconds causing the application to become unavailable. The node has been panicked to recover.

Parameters

process_name (STRING): Name of the application that failed to generate core.
process_id (INT): PID of the application that failed to generate core.
timeout (INT): Time in seconds within which the application coredump did not complete.

nodewatchdog.resrc events

nodewatchdog.resrc.alloc.failure

Severity

ALERT

Description

This message occurs when a critical system resource required for Data ONTAP® to continue serving data cannot be allocated for an extended period of time. Data ONTAP might operate in a degraded mode.

Corrective Action

If Data ONTAP operates in a degraded mode, reboot the node using the "-dump true" option. Contact NetApp technical support. When Node Watchdog is configured to "node_restart", Data ONTAP will detect and recover from this condition automatically.

Syslog Message

Resource allocation failures detected for %s. The percentage of %d allocation failure attempts were met or exceeded for %d seconds.

Parameters

resource (STRING): Type of resource that cannot be allocated.
percentage (INT): Failure percentage threshold.
duration (INT): Duration of the resource allocation failure.
diagnosis (STRING): List of system diagnoses that could cause node watchdog issues.

nodewatchdog.resrc.lng.running.crit

Severity

ALERT

Description

This message occurs when the count of certain critical resources internal to Data ONTAP® are consumed with long running operations. When this happens, Data ONTAP might operate in a degraded mode.

Corrective Action

If Data ONTAP operates in a degraded mode, reboot the node using the "-dump true" option. Contact NetApp technical support. When Node Watchdog is configured to "node_restart", Data ONTAP will detect and recover from this condition automatically.

Syslog Message

Long running %s detected. Exceeded threshold of %d%% for %d seconds.

Parameters

resource (STRING): Resource that is consumed with long running operations.
percentage (INT): Percentage of the long running resource.
duration (INT): Duration for which the resources were long running.

nodewatchdog.svc events

nodewatchdog.svc.rpc.noresp

Severity

ALERT

Description

This message occurs when a service critical to data access fails to respond to service monitoring and is restarted. Data ONTAP® might have experienced a serious error and might operate in a degraded mode.

Corrective Action

If the message reports that the service has "restarted" then no action is required. If the status is "not restarted" or "unsuccessfully restarted," then reboot the node using the "system node reboot" command with the "-dump true" option, and then contact NetApp technical support.

Syslog Message

The %s service internal to Data ONTAP that is required for continuing data service was unavailable. The service failed, but was %s.

Parameters

    service (STRING): Service that failed.

    restarted (STRING): Whether the service was restarted. Possible values are "restarted," "not restarted," and "unsuccessfully restarted."

    diagnosis (STRING): List of system diagnoses that could cause node watchdog issues.

nonha events

nonha.resvconflicthalt events

nonha.resvConflictHalt

Severity

EMERGENCY

Description

This message occurs when the controller halts itself after it finds disk with reservation conflicts.

Corrective Action

Contact NetApp technical support for recovery assistance.

Syslog Message

A disk reservation conflict was detected on disk %s at %-20s.

Parameters

disk_name (STRING): Name of the disk.
time (STRING): Time when the disk reservation conflict was detected.
last_update (INT): Time passed since last rescan, in milliseconds.

nse events

nse.authlockout events

nse.authLockOut

Severity

ERROR

Description

This message occurs when a NetApp® Storage Encryption (NSE) self-encrypting drive (SED) reports excessive sequential failed authentication attempts with an incorrect Authentication Key (AK) on the indicated SED authority. To prevent brute-force AK attacks, the SED will no longer accept even the correct AK. Access and control of the SED are affected. This condition applies to drives that implement the Trusted Computing Group (TCG) "Enterprise" and "Opal" specifications. Enterprise BandMaster1 authority lockout and Opal User1 authority lockout affect protection controls on user data. User data on the drive is permanently irretrievable for lockouts on these authorities. For other lockouts, some aspect of compliance with Federal Information Processing Standard (FIPS) PUB 140-2 is compromised. Enterprise "Erase Master" and Opal "Owner" authority lockouts disable cryptographic sanitize and destroy ONTAP® operations.

Corrective Action

The data cannot be recovered from the drive, but it might be possible to return the drive to service. To prevent lockouts, ensure that all cluster NSE nodes have all SED AKs. Display SED key IDs by using the "storage encryption disk show [-fips]" command. Verify them against those retrieved from the AK storage method: KMIP servers: Use the "security key-manager restore" command. Onboard key management: Use the "security key-manager key show" command. If the FIPS key on the drive remains at the default MSID value, for BandMaster1 or User1 authority lockout, reset the AK to its default value and simultaneously erase user data by using the "storage encryption disk sanitize" command or the (advanced privilege) "disk encrypt sanitize" command in node shell/maintenance mode. Power-cycle clears Physical Ownership lockout in some SEDs. Ensure that the SED AKs are are available as above, and power-cycle the drive to see if it clears the lockout. For other lockouts, reset the SED to its as-manufactured state and erase user data by using the "storage encryption disk revert-to-original-state" command or the (advanced privilege) "disk encrypt revert_original" command in node shell/maintenance mode with the PSID value from the device label. If the PSID is not available, replace the drive. After clearing the lockout, make the drive a spare by using the "storage disk assign" command and (advanced privilege) "storage disk unfail [-spare]" command as needed.

Syslog Message

Lockout on self-encrypting drive %s; security provider: %s, authority: %s, during operation "%s".

Parameters

deviceName (STRING): Name of the device.
securityProvider (STRING): Name of the TCG security provider process.
authority (STRING): Name of the TCG authority.
operation (STRING): Description of the operation that attempted authentication.

nse.op events

nse.op.failed

Severity

ERROR

Description

This message occurs when ONTAP® does not succeed in performing an operation on a NetApp® Storage Encryption (NSE) self-encrypting drive (SED). The message applies to drives that implement either the Trusted Computing Group (TCG) "Enterprise" or "Opal" specification. Some aspect of the operation of NSE drives is compromised.

Corrective Action

If the error persists, replace the drive.

Syslog Message

Control failure on self-encrypting drive %s; security provider: %s, authority: %s, during operation "%s".

Parameters

deviceName (STRING): Name of the device.
securityProvider (STRING): Name of the TCG security provider process.
authority (STRING): Name of the affected TCG authority.
operation (STRING): Description of the operation that failed.

nv events

nv.data events

nv.data.loss.possible

Severity

NOTICE

Description

This message occurs when a Cloud Volumes ONTAP node configured for high write speed unexpectedly shuts down, possibly resulting in a loss of data. This is expected because the NVRAM data does not have a chance to be flushed during the unforeseen shutdown.

Corrective Action

(None).

Syslog Message

An unexpected shutdown occurred while in high write speed mode, which possibly caused a loss of data.

Parameters

(None).

nv.extension events

nv.extension.disabled

Severity

INFORMATIONAL

Description

This message occurs when NVRAM segments of a nvlog client are disabled in a NVRAM section.

Corrective Action

(None).

Syslog Message

%s segments have been disabled in %s NVRAM section.

Parameters

cid (STRING): Nvlog client ID.
nv_section (STRING): The NVRAM section in which the nvlog client segments are disabled.

nv.extension.enabled

Severity

INFORMATIONAL

Description

This message occurs when NVRAM segments of a nvlog client are enabled in a NVRAM section.

Corrective Action

(None).

Syslog Message

%s segments have been enabled in %s NVRAM section.

Parameters

cid (STRING): Nvlog client ID.
nv_section (STRING): The NVRAM section in which nvlog client segments are enabled.

nv.extension.failed

Severity

ERROR

Description

This message occurs when nvlog client segments cannot be enabled in a partner NVRAM section following a controller failover. When this event occurs, the system continues to operate, but with diminished performance due to the increased failover load coupled with decreased NVRAM capacity for logging.

Corrective Action

For a System ID-related failure message, verify that each member node in this configuration is assigned a valid and unique system ID by using the "system show -fields systemid" command. Do not physically move a controller or NVRAM card in an HA or MetroCluster(tm) configuration. A failure message of "Configuration Recovery Needed" means that a reboot is needed to recover persistent MetroCluster configuration at a switchover site.

Syslog Message

Client segments cannot be enabled in the %s NVRAM section, because of %s.

Parameters

nv_section (STRING): NVRAM section in which nvlog client segments cannot be enabled.
failure_reason (STRING): Reason client segments cannot be enabled in this partner NVRAM section.

nv.fake events

nv.fake

Severity

NOTICE

Description

This message occurs when the nonvolatile (NV) driver detects that system memory is being used to simulate NVRAM.

Corrective Action

Reset the 'fake-nvram?' boot environment variable from the boot loader: 'unsetenv fake-nvram?'.

Syslog Message

%u MB system memory being used to simulate NVRAM.

Parameters

memory_size (INT): Memory size (in MB) being used to simulate NVRAM.

nv.fio events

nv.fio.write.err

Severity

ERROR

Description

This message occurs when the write to VNVRAM fails and the retry count has been exhausted.

Corrective Action

(None).

Syslog Message

The write to VNVRAM failed with error %u; retry limit exhausted.

Parameters

error (INT): Error returned by the last write.

nv.fio.write.retry

Severity

NOTICE

Description

This message occurs when the write to VNVRAM fails. The write will be retried.

Corrective Action

(None).

Syslog Message

The write to VNVRAM failed with error %u; will retry.

Parameters

error (INT): Error returned by the write.

nv.flash events

nv.flash.predict.fail

Severity

ALERT

Description

This message occurs when ONTAP® determines that failure is forthcoming or has occurred for the associated flash device on the nonvolatile memory (NVRAM) module.

Corrective Action

Replace the device to prevent future failures.

Syslog Message

%s

Parameters

reason (STRING): Reason for failure.

nv.flash.unable.to.monitor

Severity

ALERT

Description

This message occurs when the ONTAP® module that is responsible for monitoring the health of the NVRAM device cannot extract health information. This failure might indicate the NVRAM device is not operating properly.

Corrective Action

Use the "system environment sensors show" command to verify the device's status. If the failure still exists, contact technical support for assistance.

Syslog Message

Unable to monitor NVRAM device "%s".

Parameters

device (STRING): Name of the device.

nv.none events

nv.none

Severity

EMERGENCY

Description

This message occurs when the system cannot detect a nonvolatile (NV) device.

Corrective Action

Contact NetApp technical support.

Syslog Message

No NV device has been detected.

Parameters

(None).

nv.partner events

nv.partner.disabled

Severity

INFORMATIONAL

Description

This message occurs when checking the partner nonvolatile RAM (NVRAM) and the partner NVRAM is disabled. This event most commonly occurs during the takeover or switchover process after the partner has gone down.

Corrective Action

(None).

Syslog Message

NVRAM validate: %s NVRAM was disabled.

Parameters

host (STRING): Name of the partner host.

nv.partner.nvcheck.failure

Severity

ALERT

Description

This message occurs when nonvolatile RAM (NVRAM) inconsistencies are detected during takeover. Takeover is continued only if the option for consistent NVRAM mirroring is disabled or if the takeover is forced.

Corrective Action

When the partner node recovers, NVRAM will be reinitialized to a consistent state. The error string provides additional information to assist NetApp technical support in identifying the inconsistency and subsystem that caused the failure.

Syslog Message

NVRAM validate: %s

Parameters

error (STRING): Error string describing which subsystem caused the failure and what the mismatching values are.

nv.partner.size.mismatch

Severity

ALERT

Description

This message occurs when the HA pair nonvolatile RAM (NVRAM) sizes do not match. In this case, an HA pair cannot be formed.

Corrective Action

Check to make sure that the local NVRAM hardware size matches the partner NVRAM hardware size. Verify that the same bootargs are in use on both nodes. One or both nodes might need to be rebooted. Contact NetApp technical support if the problem persists.

Syslog Message

CF monitor: NVRAM size mismatch between nodes detected; node requires %llu bytes, partner exported %llu bytes.

Parameters

localNVSize (LONGINT): Size of the local NVRAM.
partnerNVSize (LONGINT): Size of the partner NVRAM.

nv.partner.takeover.continued

Severity

ALERT

Description

This message occurs when takeover proceeds even when nonvolatile RAM (NVRAM) inconsistencies are detected in the HA pair. This most commonly occurs when the NVRAM mirror consistency has been disabled or if the takeover is forced.

Corrective Action

(None).

Syslog Message

NVRAM validate: Error encountered (%s), but continuing takeover; some data might be lost.

Parameters

error (STRING): Error string.

nv.rename events

nv.rename.err

Severity

INFORMATIONAL

Description

This message occurs when there is an error while renaming the files specified in /etc/nvfail_rename.

Corrective Action

(None).

Syslog Message

nvfail_rename: %s: %s.

Parameters

fileName (STRING): File name.
error (STRING): Error string.

nv.rename.files

Severity

INFORMATIONAL

Description

This message occurs while renaming the files specified in /etc/nvfail_rename.

Corrective Action

(None).

Syslog Message

Renaming files specified in /etc/nvfail_rename.

Parameters

(None).

nv.rename.longName

Severity

INFORMATIONAL

Description

This message occurs while renaming the files specified in /etc/nvfail_rename, when the file name is too long.

Corrective Action

(None).

Syslog Message

nvfail_rename: %s: File name too long.

Parameters

fileName (STRING): File name.

nv.switchover events

nv.switchover.continued

Severity

ALERT

Description

This message occurs when switchover proceeds even when nonvolatile RAM (NVRAM) inconsistencies are detected in the DR partner sections.

Corrective Action

(None).

Syslog Message

NVRAM validate: Error encountered (%s), but continuing switchover; some data might be lost.

Parameters

error (STRING): Error string.

nvd events

nvd.biodone events

nvd.biodone.bio.flush.error

Severity

NOTICE

Description

This message occurs when there is an error during a block I/O flush operation.

Corrective Action

Check the host logs for any drive errors related to the device reported in this event.

Syslog Message

Block I/O flush operation (bio_flush) for opcode: 0x%x failed for device: %s.

Parameters

opcode (INTHEX): SCSI opcode.
dev_path (STRING): Device path.

nvd.biodone.error.code

Severity

NOTICE

Description

This message occurs when there is an error during an I/O operation.

Corrective Action

Check the host logs for any drive errors related to the device reported in this event.

Syslog Message

I/O for opcode: 0x%x returned with error code: %d for device: %s.

Parameters

opcode (INTHEX): SCSI opcode.
bio_error (INT): Error code.
dev_path (STRING): Device path.

nvdimm events

nvdimm.excessive events

nvdimm.excessive.cecc.errs

Severity

ALERT

Description

This message occurs when excessive correctable error-correcting code (ECC) memory errors are reported by the NVDIMM controller.

Corrective Action

Use the "system environment sensors show -hidden true" clustershell command to view the current "NV Correctable ECC Count" value. Contact NetApp technical support for further assistance.

Syslog Message

Excessive correctable ECC errors in the NVDIMM in slot-%d. Count: %d.

Parameters

slot (INT): NVDIMM slot location.
count (INT): CECC count.

nvdimm.flash events

nvdimm.flash.lifetime.low

Severity

ALERT

Description

This message occurs when the NVDIMM device exceeds its warning threshold. This issue typically indicates that the NVDIMM hardware is approaching the end of its service life and should be replaced soon.

Corrective Action

Contact NetApp technical support for assistance with replacing the NVDIMM hardware.

Syslog Message

Service lifetime of NVDIMM device in slot-%d is low at %d%%.

Parameters

slot (INT): NVDIMM slot location.
percent (INT): Lifetime percentage.

nvdimm.fw events

nvdimm.fw.upgrade.failure

Severity

ERROR

Description

This message occurs when NVDIMM controller firmware failed to upgrade.

Corrective Action

Power-cycle the controller and reboot ONTAP to attempt the firmware update again. If the error persists, contact NetApp technical support for assistance.

Syslog Message

NVDIMM controller in slot-%d failed to upgrade firmware because of %s.

Parameters

slot (INT): NVDIMM slot location.
error (STRING): Reason for upgrade failure, which could be: 1. the image file does not exist or is corrupted 2. it is unable to enter update mode 3. it is unable to clear update mode 3. the firmware image transfer failed 4. of a CRC mismatch with the transferred image 5. it failed to validate or commit the image 6. it failed to restart after the image upgrade

nvdimm.fw.upgrade.succeed

Severity

NOTICE

Description

This message occurs when the NVDIMM controller sucessfully upgrades its own firmware image..

Corrective Action

(None).

Syslog Message

NVDIMM controller firmware in slot-%d was upgraded to %s.

Parameters

slot (INT): NVDIMM slot location.
version (STRING): New firmware version.

nvdimm.nvmem events

nvdimm.nvmem.checkfail

Severity

EMERGENCY

Description

This message occurs when NVDIMM-based NVMEM checks fail.

Corrective Action

For all errors, check that the right type of NVDIMM is properly installed at the designated DIMM slot.

Syslog Message

NVMEM subsystem configuration check failed because %s. To prevent NVMEM data loss, halt the system.

Parameters

error (STRING): Description of the error, which could be: 1 device in slot-N is not accessbile. 2. device in slot-N is missing. 3. device in slot-N is not NVDIMM. 4. device in slot-N is the wrong size (N); expected size (N)

nvdimm.nvmem.destage.failure

Severity

ALERT

Description

This message occurs when NVDIMM fails to copy nonvolatile data to the flash on the NVDIMM-device.

Corrective Action

This type of error indicates that the volatile data on the local NVMEM has been lost. A storage system in an HA configuration might recover the NVMEM content from its partner. To prevent future possible data loss, take the appropriate actions based on the error: 1. If the failure is caused by a malfunctioning battery, contact NetApp technical support for assistance with battery replacement. 2. If the failure is caused by an NVDIMM intermittent hardware failure, contact NetApp technical support for assistance.

Syslog Message

NVMEM subsystem failed to copy nonvolatile data to flash memory on NVIDMM device because %s.

Parameters

error (STRING): Reason for destage failure could be: (1) SDRAM is not in self-refresh mode (2) energy source (battery) is not functioning properly (3) of insufficient battery (4) destage process timeout (5) an intermitten hardware error results partial data saved (6) of a hardware error (7) of a firmware error (8) of a flash error

nvdimm.nvmem.destage.succeed

Severity

NOTICE

Description

This message occurs when all NVDIMM devices have copied nonvolatile data to flash memory.

Corrective Action

(None).

Syslog Message

NVMEM subsystem successfully copied nonvolatile data to flash memory on NVDIMM device in %ld seconds.

Parameters

seconds (INT): Time taken by the destage operation.

nvdimm.nvmem.initfail

Severity

EMERGENCY

Description

This message occurs when the nvdimm-based NVMEM subsystem is not initialized succesfully.

Corrective Action

For all errors, check if the error is persistent or intermittent by power cycling the controller and rebooting ONTAP. Note: If the last reboot is a dirty shutdown, set the bootarg.init.battery_override to force system to replay the NVLOG first when booting. Then, gracefully shut down and power cycle the controller.. If the failure is persistent: (a) For error (1) (2) (3) (5) (6) (7) (8), contact NetApp technical support for assistance with replacement.of NVDIMM or upgrade NVDIMM firmware. (b) For error (4), b.1 If failure cause is battery, contact NetApp technical support for assistance with replacement of the battery. b.2 For other failures, contact NetApp technical support for assistance with replacement of NVDIMM. (c) For error (9), contact NetApp technical support for assistance with replacement of the controller. (d) For error (10), verify the NVDIMM is installed properly and check if the correct BIOS is installed.

Syslog Message

NVMEM subsystem initialization failed because %s. To prevent NVMEM data loss, halt the system.

Parameters

error (STRING): Description of the error, which could be: 1.NVDIMM device in slot-N not accessible. 2.NVDIMM device in slot-N not ready. 3.NVDIMM device in slot-N is busy. 4.NVDIMM device in slot-N lost persistence due to [reason] 5.NVDIMM device in slot-N has worn-out flash (N percent remaining) 6.NVDIMM device in slot-N failed to configure energy source 7.NVDIMM device in slot-N failed to configure saveNPin. 8.NVDIMM device in slot-N failed to enable data preservation. 9.failed to enable battery. 10.NVDIMM memory address not mapped contiguously.

nvdimm.nvmem.restage.failure

Severity

ALERT

Description

This message occurs when nonvolatile data on the NVDIMM is either corrupt or not accessible. Because these errors cannot be corrected, nonvolatile data in flash memory is lost.

Corrective Action

Frequent occurrence of these errors indicates that the NVDIMM is experiencing persistent intermittent hardware failure. Contact NetApp technical support for assistance with replacement.

Syslog Message

NVMEM subsystem failed to restore nonvolatile data from flash memory on the NVIDMM module because of %s.

Parameters

error (STRING): Reason for restage failure could be: (1) SDRAM is not in self-refresh mode (2) of SDRAM uncorrectable error (3) restage process timeout (4) of a hardware error

nvdimm.nvmem.restage.succeed

Severity

NOTICE

Description

This message occurs when all NVDIMM devices have restored nonvolatile data from flash memory.

Corrective Action

(None).

Syslog Message

NVMEM subsystem successfully restored nonvolatile data from flash memory on NVDIMM device in %ld seconds.

Parameters

seconds (INT): Time taken by the restage operation.

nvlog events

nvlog.replay events

nvlog.replay.source

Severity

NOTICE

Description

This message occurs on Cloud Volumes ONTAP platforms to identify the source of the nonvolatile log (nvlog) replay that follows.

Corrective Action

(None).

Syslog Message

nvlog replay data source is %s.

Parameters

Source (STRING): Source of the nvlog replay data.

nvme events

nvme.boot events

nvme.boot.fw.update.complete

Severity

   NOTICE

Description

   This message occurs when the NVMe boot device firmware has been updated.

Corrective Action

   (None).

Syslog Message

   The NVMe boot device has completed the firmware update from %s to %s.

Parameters

   old_ver (STRING): Previous firmware version.
   new_ver (STRING): New firmware version.

nvme.boot.fw.update.failure

Severity

   ALERT

Description

   This message occurs when the NVMe boot device firmware has failed to update.

Corrective Action

   Contact NetApp technical support for assistance.

Syslog Message

   The NVMe boot device has failed a firmware update from %s to %s.

Parameters

   old_ver (STRING): Previous firmware version.
   new_ver (STRING): New firmware version.

nvme.card events

nvme.card.degraded

Severity

   ERROR

Description

This message occurs when the NVMe caching module has gone into a degraded state due to a warning reported by the drive. Performance, integrity, or reliability may be compromised.

Corrective Action

Replace the NVMe caching module.

Syslog Message

NVMe caching module in slot %s with serial number %s, and model number %s is degraded with status 0x%llx.

Parameters

slot_subslot (STRING): PCI slot of the NVMe device.
serial (STRING): Serial number of the controller.
model (STRING): Model number of the controller.
reason (LONGINTHEX): Internal reason why the card is degraded.

nvme.card.removed

Severity

ERROR

Description

This message occurs when an NVMe drive has been "hot-removed" from the system (while the system was powered on). The caching module is unavailable and system performance will be degraded.

Corrective Action

Insert an NVMe caching module into the system.

Syslog Message

NVMe caching module in slot %s with serial number %s, and model number %s was removed from the system.

Parameters

slot_subslot (STRING): PCI slot of the NVMe device.
serial (STRING): Serial number of the controller.
model (STRING): Model number of the controller.

nvme.fw events

nvme.fw.activate.complete

Severity

NOTICE

Description

This message occurs when new firmware has been successfully activated on the drive and running normally.

Corrective Action

(None).

Syslog Message

NVMe caching module in physical slot %s with serial number %s, and model number %s successfully replaced firmware version %s with %s in firmware slot %u.

Parameters

slot_subslot (STRING): PCI slot of the NVMe device.
serial (STRING): Serial number of the controller.
model (STRING): Model number of the controller.
old (STRING): Version of firmware that has been replaced.
new (STRING): Version of firmware that was activated.
fw_slot (INT): Firmware slot that the new version was programmed to.
reset (INT): An indication on whether the device had to be reset or not in order to activate the firmware.

nvme.fw.activate.failed

Severity

ERROR

Description

This message occurs when there was an issue while activating the new firmware on the the NVMe drive. The caching module will continue normal operation with obsolete firmware.

Corrective Action

The caching module is still completely functional, but it is running with obsolete firmware. Contact NetApp technical support for alternative solutions.

Syslog Message

NVMe caching module in slot %s with serial number %s and model number %s failed to activate firmware. Error code: 0x%llx.

Parameters

slot_subslot (STRING): PCI slot of the NVMe device.
serial (STRING): Serial number of the controller.
model (STRING): Model number of the controller.
code (LONGINTHEX): Internal error code.

nvme.fw.program.failed

Severity

ERROR

Description

This message occurs when there was an issue while downloading new firmware to the NVMe drive. The caching module will continue normal operation with obsolete firmware.

Corrective Action

The caching module is still completely functional however it is running with obsolete firmware. Contact NetApp technical support for alternative solutions.

Syslog Message

NVMe caching module in slot %s with serial number %s, and model number %s failed to download firmware version %s to the drive with error code 0x%llx.

Parameters

slot_subslot (STRING): PCI slot of the NVMe device.
serial (STRING): Serial number of the controller.
model (STRING): Model number of the controller.
version (STRING): Version of firmware attempted to download.
code (LONGINTHEX): Internal error code.

nvme.link events

nvme.link.disabled.error

Severity

ERROR

Description

This message occurs when the NVMe driver disables the PCIe link due to excessive errors.

Corrective Action

Remove or replace the NVMe SSD.

Syslog Message

PCIe link disabled for NVMe SSD in slot %d due to excessive errors.

Parameters

slot (INT): Slot number of associated NVMe SSD.

nvme.link.error

Severity

ERROR

Description

This message occurs when the NVMe SSD PCIe link does not intialize.

Corrective Action

Remove or replace the NVMe SSD.

Syslog Message

PCIe link initialization error for NVMe SSD in slot %d.

Parameters

slot (INT): Slot number of associated NVMe SSD.

nvme.ssd events

nvme.ssd.attach.error

Severity

ERROR

Description

This message occurs when the NVMe drive encounters an error before the drive is reported to upper layers. The drive will not be discovered, and will not appear in sysconfig output.

Corrective Action

The drive could not be attached. Remove or replace the drive.

Syslog Message

NVMe SSD encountered error: "%s" on slot %d. Could not attach drive.

Parameters

error (STRING): Type of error that occurred.
slot (INT): Slot number of associated NVMe SSD.

nvmem events

nvmem.battery events

nvmem.battery.capacity.low

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery lacks the capacity to preserve the NVMEM contents for the required minimum of 72 hours. The system is at the risk of data loss if the power fails. This message repeats every hour while the problem continues and the system shuts down in 24 hours if automatic recharging of the battery does not restore its charge.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. The battery charges automatically. If the capacity is not restored in several hours, replace the battery pack. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery lacks the capacity to preserve the NVMEM contents.

Parameters

(None).

nvmem.battery.capacity.low.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery capacity is below normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery capacity is below normal.

Parameters

(None).

nvmem.battery.capacity.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery capacity is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery capacity is normal.

Parameters

(None).

nvmem.battery.capLow

Severity

ALERT

Description

This message occurs when the NVMEM battery capacity is low. To prevent data loss, the system schedules a clean shutdown if the problem is not corrected.

Corrective Action

Correct any environmental problems, such as chassis overheating. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after the system is powered on, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery capacity is low (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvmem.battery.capLowCrit

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery capacity is critically low. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Correct any environmental problems, such as overheating. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after the system is powered on, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery capacity is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

> **reading** (STRING): Reading that triggered this message.
> **num_minutes** (INT): Number of minutes until the system shuts down.

nvmem.battery.capLowWarn

Severity

> ERROR

Description

> This message occurs when the NVMEM battery capacity is below normal.

Corrective Action

> Correct any environmental problems, such as overheating. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after the system is powered on, replace the NVMEM battery within three months. If the problem persists, replace the controller module.

Syslog Message

> The NVMEM battery capacity is below normal (%s).

Parameters

> **reading** (STRING): Reading that triggered this message.

nvmem.battery.capNormal

Severity

> NOTICE

Description

> This message occurs when the NVMEM battery capacity is normal.

Corrective Action

> (None).

Syslog Message

> The NVMEM battery capacity is normal.

Parameters

> (None).

nvmem.battery.chgrFailed

Severity

> ERROR

Description

> This message occurs when the NVMEM battery charger is disabled because a bad charger circuit is detected. The system continues to run as normal but the NVMEM battery does not start charging when it falls below a certain capacity.

Corrective Action

Contact NetApp technical support for assistance to replace the circuit at the next available maintenance window.

Syslog Message

The NVMEM battery charger is disabled because a bad charger circuit is detected.

Parameters

(None).

nvmem.battery.current.high

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery current is excessively high and the system will shut down.

Corrective Action

First, correct any environmental problems, such as chassis over- temperature. If the NVMEM battery current is still too high, replace the battery pack. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery current is excessively high and the system will shut down.

Parameters

(None).

nvmem.battery.current.high.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery current is above normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery current is above normal.

Parameters

(None).

nvmem.battery.current.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery current is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery current is normal.

Parameters

(None).

nvmem.battery.currentHigh

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery charging current is critically high. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery current is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.currentHiWarn

Severity

ALERT

Description

This message occurs when the NVMEM battery charging current is above normal. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery current is above normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.currentLow

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery detects a short circuit. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the controller module.

Syslog Message

The NVMEM battery has a short circuit (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.currentLowWarn

Severity

ALERT

Description

This message occurs when the NVMEM battery is discharging when it should not. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery current is below normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.discFET.normal

Severity

NOTICE

Description

This message occurs when the NVMEM battery discharge field-effect transistor (FET) is on.

Corrective Action

(None).

nvmem.battery.discFET.off

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery discharge field-effect transistor (FET) is off. To prevent data loss, the system shuts down.

Corrective Action

Shut down the system and power-cycle the controller. If the discharge FET remains off, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery discharge FET is off. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.end_of_life.high

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery-cycle count indicates that the battery has reached its anticipated life expectancy.

Corrective Action

(None).

Syslog Message

The NVMEM battery has reached its anticipated life expectancy.

Parameters

(None).

nvmem.battery.end_of_life.high.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery-cycle count indicates that the battery is nearing its anticipated life expectancy.

Corrective Action

(None).

Syslog Message

The NVMEM battery is nearing its anticipated life expectancy.

Parameters

(None).

nvmem.battery.end_of_life.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery-cycle count indicates that the battery is well below its anticipated life expectancy.

Corrective Action

(None).

Syslog Message

The NVMEM battery is well below its anticipated life expectancy.

Parameters

(None).

nvmem.battery.fccLow

Severity

ALERT

Description

This message occurs when the NVMEM battery full-charge capacity is low. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Use the "system battery show" SP CLI command to get the battery manufactured date. If the battery is newer than three years old, correct any chronic environmental problems, such as overheating. If the full-charge capacity is still below normal, contact technical support for assistance with replacement of the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery full-charge capacity is low (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.fccLowCrit

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery full-charge capacity is critically low. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Use the "system battery show" SP CLI command to get the battery manufactured date. If the battery is newer than three years old, correct any chronic environmental problems, such as overheating. If the full-charge capacity is still below normal, contact technical support for assistance with replacement of the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery full-charge capacity is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.fccLowWarn

Severity

ALERT

Description

This message occurs when the NVMEM battery full-charge capacity is below normal.

Corrective Action

Use the "system battery show" SP CLI command to get the battery manufactured date. If the battery is newer than three years old, correct any chronic environmental problems, such as overheating. If the full-charge capacity is still below normal, contact technical support for assistance with replacement of the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery full-charge capacity is below normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvmem.battery.fccNormal

Severity

NOTICE

Description

This message occurs when the NVMEM battery full-charge capacity is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery full-charge capacity is normal.

Parameters

(None).

nvmem.battery.FET.normal

Severity

NOTICE

Description

This message occurs when the NVMEM battery charge field-effect transistor (FET) is on.

Corrective Action

(None).

Syslog Message

The NVMEM battery charge FET is on.

Parameters

(None).

nvmem.battery.FET.off

Severity

ALERT

Description

This message occurs when the NVMEM battery charge field-effect transistor (FET) is off. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Shut down the system and power-cycle the controller. If the charge FET remains off, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery charge FET is off. To prevent data loss, the system will shut down %s.

Parameters

countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.noCharge

Severity

ALERT

Description

This message occurs when the NVMEM battery requests a charge but does not receive it. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Pull the controller from the slot and ensure that the NVMEM battery connector is seated properly. If the problem occurs again, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery is requesting to be charged but the charger is not charging the battery. To prevent data loss, the system will shut down %s.

Parameters

countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.normalCharge

Severity

NOTICE

Description

This message occurs when the NVMEM battery charging status is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery charging status is normal.

Parameters

(None).

nvmem.battery.notPresent

Severity

ALERT

Description

This message occurs when the NVMEM battery is not present. To prevent data loss, the system shuts down.

Corrective Action

While the system is shut down, pull the controller from the slot and ensure that the NVMEM battery is present. If the NVMEM battery is already present, ensure that the connector is seated properly. Push the controller back in and power on the system. If this does not correct the problem, replace the NVMEM battery. If the system still does not detect the battery, replace the controller module.

Syslog Message

The NVMEM battery is not present. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.packInvalid

Severity

EMERGENCY

Description

This message occurs when an unsupported NVMEM battery pack is installed in the system. To prevent data loss, the system initiates a clean shutdown if the problem is not corrected.

Corrective Action

Shut down the system and replace the NVMEM battery with a correct battery pack.

Syslog Message

The incorrect NVMEM battery is installed. Expected part number is %s. To prevent data loss, the system will shut down in %d minutes.

Parameters

partnum (STRING): Valid battery part number.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.packInvalidHrs

Severity

EMERGENCY

Description

This message occurs when an unsupported NVMEM battery pack is installed in the system. To prevent data loss, the system initiates a clean shutdown if the problem is not corrected.

Corrective Action

Shut down the system and replace the NVMEM battery with a correct battery pack.

Syslog Message

The incorrect NVMEM battery is installed. Expected part number is %s. To prevent data loss, the system will shut down in %s.

Parameters

partnum (STRING): Valid battery part number.
remaining_time (STRING): Number of hours until the system shuts down.

nvmem.battery.packValid

Severity

NOTICE

Description

This message occurs when a valid NVMEM battery pack is present and readable.

Corrective Action

(None).

Syslog Message

A valid NVMEM battery pack is present.

Parameters

(None).

nvmem.battery.powerFault

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery is not receiving power. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Pull the controller from the slot and ensure that the NVMEM battery connector is seated properly. Push the controller back in and boot the system. If the NVMEM battery is still not receiving power, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery is not receiving power. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.powerNormal

Severity

NOTICE

Description

This message occurs when the NVMEM battery power is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery power is normal.

Parameters

(None).

nvmem.battery.sensor.unread

Severity

ERROR

Description

This message occurs when the battery state of the battery-backed memory (NVMEM) is unknown. One of the battery sensors is not readable.

Corrective Action

Shut down the system and power-cycle the controller module. If the problem is not corrected, replace the battery. If the sensor is still not readable, replace the controller module.

Syslog Message

The battery state of the battery-backed memory (NVMEM) is unknown. Sensor "%s" is not readable.

Parameters

sensor_name (STRING): Sensor name.

nvmem.battery.temp.high

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery is too hot and the system is at a high risk of data loss if power fails. The system will shut down.

Corrective Action

If the system is excessively warm, allow it to cool gradually. If the NVMEM battery temperature reading is still too high, replace the battery pack. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery is too hot and the system is at a high risk of data loss if power fails. The system will shut down to prevent data loss.

Parameters

(None).

nvmem.battery.temp.high.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery temperature high.

Corrective Action

(None).

Syslog Message

The NVMEM battery temperature is high.

Parameters

(None).

nvmem.battery.temp.low

Severity

ALERT

Description

This message occurs when the NVMEM battery is too cold and the system is at a high risk of data loss if power fails.

Corrective Action

If the system is excessively cold, allow it to warm gradually. If the NVMEM battery temperature reading is still too low, replace the battery pack. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery is too cold and the system is at a high risk of data loss if power fails.

Parameters

(None).

nvmem.battery.temp.low.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery temperature is low.

Corrective Action

(None).

Syslog Message

The NVMEM battery temperature is low.

Parameters

(None).

nvmem.battery.temp.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery temperature is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery temperature is normal.

Parameters

(None).

nvmem.battery.tempHigh

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery temperature is critically high. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Correct any environmental problems, such as a overheating. If the NVMEM battery temperature is still above normal, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery temperature is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.tempLow

Severity

ALERT

Description

This message occurs when the NVMEM battery is too cold. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

If the system is excessively cold, allow it to warm gradually. If the NVMEM battery temperature is still too low, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery is too cold (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.unread

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery state cannot be determined because the sensor is unreadable. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Pull the controller from the slot and ensure that the NVMEM battery connector is seated properly. If the problem is not corrected, replace the NVMEM battery. If the sensor is still not readable, replace the controller module.

Syslog Message

The NVMEM battery state cannot be determined because the '%s' sensor is unreadable. To prevent data loss, the system will shut down in %d minutes.

Parameters

sensor_name (STRING): Sensor name.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.unreadHrs

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery state cannot be determined because the sensor is unreadable. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Pull the controller from the slot and ensure that the NVMEM battery connector is seated properly. If the problem is not corrected, replace the NVMEM battery. If the sensor is still not readable, replace the controller module.

Syslog Message

The NVMEM battery state cannot be determined because the '%s' sensor is unreadable. To prevent data loss, the system will shut down in %s.

Parameters

sensor_name (STRING): Sensor name.
remaining_time (STRING): Remaining time before chassis shutdown.

nvmem.battery.voltage.high

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery voltage is excessively high and the system will shut down.

Corrective Action

First, correct any environmental problems, such as chassis over- temperature. If the NVMEM battery voltage is still too high, replace the battery pack. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery voltage is excessively high and the system will shut down.

Parameters

(None).

nvmem.battery.voltage.high.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery voltage is above normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery voltage is above normal.

Parameters

(None).

nvmem.battery.voltage.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM battery voltage is normal.

Corrective Action

(None).

Syslog Message

The NVMEM battery voltage is normal.

Parameters

(None).

nvmem.battery.voltageHigh

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery voltage is critically high. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery voltage is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.voltageHiWarn

Severity

ALERT

Description

This message occurs when the NVMEM battery voltage is above normal. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Correct any environmental problems, such as overheating. If the NVMEM battery voltage is still above normal, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery voltage is above normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvmem.battery.voltageLow

Severity

EMERGENCY

Description

This message occurs when the NVMEM battery voltage is critically low. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Correct any environmental problems, such as overheating. If the NVMEM battery voltage is still critically low, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery voltage is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvmem.battery.voltageLowWarn

Severity

ALERT

Description

This message occurs when the NVMEM battery voltage is below normal. To prevent data loss, the system schedules a clean shutdown if the problem is not corrected.

Corrective Action

Correct any environmental problems, such as overheating. If the NVMEM battery voltage is still below normal 30 minutes after environmental problems have been corrected, replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery voltage is below normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvmem.battery.wrongCharge

Severity

ALERT

Description

This message occurs when the NVMEM battery charger charges the battery without a request to do so. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Replace the NVMEM battery. If the problem persists, replace the controller module.

Syslog Message

The NVMEM battery charger is charging the battery even though the battery is not requesting to be charged. To prevent data loss, the system will shut down %s.

Parameters

countdown (STRING): Remaining time before chassis shutdown.

nvmem.voltage events

nvmem.voltage.high

Severity

EMERGENCY

Description

This message occurs when the NVMEM supply voltage is high and the system is at a high risk of data loss if power fails. The system will shut down.

Corrective Action

Correct any environmental or battery problems. If the problem persists, replace the controller module.

Syslog Message

The NVMEM supply voltage is high and the system is at a high risk of data loss if power fails. The system will shut down to prevent data loss.

Parameters

(None).

nvmem.voltage.high.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM supply voltage is above normal.

Corrective Action

(None).

Syslog Message

The NVMEM supply voltage is above normal.

Parameters

(None).

nvmem.voltage.low

Severity

ALERT

Description

This message occurs when the NVMEM supply voltage is low and the system is at a high risk of data loss if power fails.

Corrective Action

First, correct any environmental or battery problems. If the problem continues, replace the controller module.

Syslog Message

The NVMEM supply voltage is low and the system is at a high risk of data loss if power fails.

Parameters

(None).

nvmem.voltage.low.warn

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM supply voltage is below normal.

Corrective Action

(None).

Syslog Message

The NVMEM supply voltage is below normal.

Parameters

(None).

nvmem.voltage.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVMEM supply voltage is normal.

Corrective Action

(None).

Syslog Message

The NVMEM supply voltage is normal.

Parameters

(None).

nvmens events

nvmens.512blksz events

NVMeNS.512blksz.repl.unsupp

Severity

ERROR

Description

This message occurs when replication of a volume containing NVMe namespaces that use 512-byte block sizes fails because the destination does not support NVMe namespaces with this block size.

Corrective Action

Replicate volumes containing NVMe namespaces with 512-byte block sizes only to destinations that support namespaces that use this block size.

Syslog Message

Logical replication failed for volume %s (DSID %llu): No 512-byte block size NVMe namespace support on the destination.

Parameters

volume_name (STRING): Name of the source volume.
volume_dsid (LONGINT): Data set ID (DSID) of the source volume.

nvmens.destroy events

NVMeNS.destroy

Severity

NOTICE

Description

This message occurs when an NVMe namespace has been destroyed.

Corrective Action

(None).

Syslog Message

NVMe namespace %s, vol %s (DSID %llu) was destroyed (UUID: %s).

Parameters

NVMeNS_path (STRING): Path for the NVMe namespace that was destroyed.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the NVMe namespace.
object_type (STRING): Type of object under notification.

nvmens.offline events

NVMeNS.offline

Severity

NOTICE

Description

This message occurs when an NVMe namespace has been brought offline manually.

Corrective Action

(None).

Syslog Message

NVMe namespace %s, vol %s (DSID %llu) was brought offline (UUID: %s).

Parameters

path (STRING): Path for the NVMe namespace that has been brought offline.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the NVMe namespace.
object_type (STRING): Type of object under notification.

nvmens.online events

NVMeNS.online

Severity

NOTICE

Description

This message occurs when an NVMe namespace is brought online manually.

Corrective Action

(None).

Syslog Message

NVMe namespace %s, vol %s (DSID %llu) was brought online (UUID: %s).

Parameters

path (STRING): Path for the NVMe namespace that was brought online.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the NVMe namespace.
object_type (STRING): Type of object under notification.

nvmens.out events

NVMeNS.out.of.space

Severity

EMERGENCY

Description

This message occurs when an NVMe namespace has been brought offline because of a write failure due to lack of space.

Corrective Action

Add space to the volume, and then bring the NVMe namespace online using the "vserver nvme namespace modify" command.

Syslog Message

NVMe namespace %s, vol %s (DSID %llu) is out of space (UUID: %s).

Parameters

path (STRING): Path for the NVMe namespace that has been brought offline.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Data set ID (DSID) of the containing volume.
object_uuid (STRING): UUID of the NVMe namespace.
object_type (STRING): Type of object under notification.

nvmens.repl events

NVMeNS.repl.unsupp.ver

Severity

ERROR

Description

This message occurs when replication of a volume containing NVMe namespaces has failed because the destination does not support NVMe namespaces.

Corrective Action

Replicate volumes with NVMe namespaces only to destinations that support NVMe namespaces.

Syslog Message

Logical replication failed for volume %s (DSID %llu): No NVMe namespace support on the destination.

Parameters

volume_name (STRING): Name of the source volume.
volume_dsid (LONGINT): Data set ID (DSID) of the source volume.

nvmens.smbc events

NVMeNS.SMBC.vol.unsupp

Severity

ERROR

Description

This message occurs when an NVMe namespace is partially restored to a SnapMirror® active sync volume because the SnapMirror® active sync volume does not support NVMe namespace.

Corrective Action

Restore of NVMe namespace to the SnapMirror® active sync volume is not supported although it is partially created on the SnapMirror® active sync volume as part of restore. The NVMe namespace needs to be manually deleted. Contact NetApp technical support for assistance.

Syslog Message

NVMe namespace "%s" is not supported on SnapMirror® active sync volume "%s" (DSID %llu).

Parameters

path (STRING): Path for the NVMe namespace that has been restored.
volume_name (STRING): Name of the containing volume.
volume_dsid (LONGINT): Dataset ID (DSID) of the containing volume.

nvmeof events

nvmeof.cabling events

nvmeof.cabling.clear

Severity

NOTICE

Description

This message occurs when all of the cabling issues to the shelf have been corrected.

Corrective Action

(None).

Syslog Message

The storage cabling issues on node "%s" have been corrected.

Parameters

node_name (STRING): Node name connected to the cable.

nvmeof.cabling.error

Severity

ERROR

Description

This message occurs when there are errors with the cabling to the shelf.

Corrective Action

Run the "storage check-cables" node shell command to list the errors. Follow the cabling guide to correct the issues.

Syslog Message

There is a storage cabling issue on node "%s". Run the "storage check-cables" node shell command to list the errors.

Parameters

node_name (STRING): Node name connected to the cable.

nvmeof.hostport events

nvmeof.hostport.clear

Severity

NOTICE

Description

This message occurs when a node shelf is no longer cabled incorrectly from a port that is not a storage

port. Indicates condition has cleared.

Corrective Action

(None).

Syslog Message

Shelf on node %s with SN %s is no longer cabled incorrectly from a port that is not a storage port.

Parameters

node_name (STRING): Host name connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.hostport.error

Severity

ERROR

Description

This message occurs when the host port is incorrectly cabled to the shelf.

Corrective Action

Reconnect the host port to a Storage Ethernet port.

Syslog Message

Port %s is not configured as a Storage Ethernet port on node %s. It is incorrectly cabled to Shelf with SN %s.

Parameters

host_port (STRING): Host port connected to the cable.
node_name (STRING): Host name connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.mixedports events

nvmeof.mixedports.clear

Severity

NOTICE

Description

This message occurs when there is no longer a nonrecommended mix of a dedicated port and a nondedicated port cabled from a node to a shelf.

Corrective Action

(None).

Syslog Message

There is no longer a nonrecommended mix of a dedicated port and a nondedicated port cabled from node %s to shelf with SN %s.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.mixedports.error

Severity

ERROR

Description

This message occurs when both primary and secondary host ports are incorrectly cabled to a shelf. This cabling might compromise physical data link redundancy and inhibit system performance.

Corrective Action

Connect either primary dedicated ports or secondary nondedicated ports to the shelf, but not both port types.

Syslog Message

There is a nonrecommended mix of a dedicated port and a nondedicated port cabled from node %s to Shelf with SN %s.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.onlyoneport events

nvmeof.onlyoneport.clear

Severity

NOTICE

Description

This message occurs when there is no longer only one port cabled from a node to a shelf.

Corrective Action

(None).

Syslog Message

There is no longer only one port cabled from node %s to shelf with SN %s.

Parameters

node_name (STRING): Host name connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.onlyoneport.error

Severity

ERROR

Description

This message occurs when host port is incorrectly cabled to a shelf.

Corrective Action

The host port is incorrectly cabled to shelf. two ports must be connected to ensure redundancy.

Syslog Message

There is only one port cabled from node %s to Shelf with SN %s.

Parameters

node_name (STRING): Host name connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.port events

nvmeof.port.modify

Severity

NOTICE

Description

This message occurs when the mode of an NVMe-oF port is changed.

Corrective Action

(None).

Syslog Message

Changing NVMe-oF port %s to %s mode.

Parameters

port (STRING): Name of port being configured.
mode (STRING): Mode in which to configure port: network or storage.

nvmeof.portioma events

nvmeof.portioma.clear

Severity

NOTICE

Description

This message occurs when there are no longer two ports cabled incorrectly from a node to top module (A) on a shelf.

Corrective Action

(None).

Syslog Message

Two ports are no longer cabled incorrectly from node %s to top module (A) on shelf with SN %s.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.portioma.error

Severity

ERROR

Description

This message occurs when there are two ports cabled to the top module (A) on a shelf.

Corrective Action

Connect two ports to different modules to provide redundancy.

Syslog Message

There are two ports cabled from node %s to top module (A) on Shelf with SN %s. One of these cables should be removed.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.portiomb events

nvmeof.portiomb.clear

Severity

NOTICE

Description

This message occurs when there are no longer two ports cabled incorrectly from a node to bottom module (B) on a shelf.

Corrective Action

(None).

Syslog Message

Two ports are no longer cabled incorrectly from node %s to bottom module (B) on shelf with SN %s.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.portiomb.error

Severity

ERROR

Description

This message occurs when there are two ports cabled to the bottom module (B) on a shelf.

Corrective Action

Connect two ports to different modules to provide redundancy.

Syslog Message

There are two ports cabled from node %s to bottom module (B) on Shelf with SN %s. One of these cables should be removed.

Parameters

node_name (STRING): Host port connected to the cable.
shelf_sn (STRING): Serial number of the shelf connected to the cable.

nvmeof.rdma events

nvmeof.rdma.disconnect.event

Deprecated

Deprecated as of version 9.13.1.

Severity

NOTICE

Description

This message occurs when the NVMe-oF driver detects an RDMA disconnect. There might be a decrease in performance while reconnecting.

Corrective Action

(None).

Syslog Message

NVMe-oF RDMA disconnect on subnqn %s, controller ID %d, qpair ID %d.

Parameters

subnqn (STRING): Subsystem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.

nvmeof.rdma.disconnect.status

Deprecated

Deprecated as of version 9.13.1.

Severity

NOTICE

Description

This message occurs when the NVMeoF driver detects a command that finishes with a disconnect status. There might be a decrease in performance while reconnecting.

Corrective Action

(None).

Syslog Message

NVMe-oF disconnect on subnqn %s, controller ID %d, qpair ID %d.

Parameters

subnqn (STRING): Subsystem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.

nvmeof.subsystem events

nvmeof.subsystem.add

Severity

NOTICE

Description

This message occurs when an NVMe-oF subsystem is added.

Corrective Action

(None).

Syslog Message

NVMe-oF subsystem added at address %s.

Parameters

address (STRING): IP address of susbsystem.

nvmeof.subsystem.delete

Severity

NOTICE

Description

This message occurs when an NVMe-oF subsystem is deleted.

Corrective Action

(None).

Syslog Message

NVMe-oF subsystem deleted at address %s.

Parameters

address (STRING): IP address of susbsystem.

nvmeof.timeout events

nvmeof.timeout

Severity

NOTICE

Description

This message occurs when the NVMeoF driver detects a timeout on a request. There might be a decrease in performance while retrying.

Corrective Action

(None).

Syslog Message

Timeout on subnqn %s, controller ID %d, qpair ID %d, sequence number %d.

Parameters

subnqn (STRING): Subsytem NVMe qualified name.
ctrlr_id (INT): Controller ID.
qpair (INT): Qpair ID.
cid (INT): NVMe-oF CID.

nvmf events

nvmf.graceperiod events

nvmf.graceperiod.active

Severity

ALERT

Description

This message occurs daily while the NVMe over Fabrics (NVMe-oF) protocol is in use and the license grace period is active. NVMe-oF functionality requires a license in this version of ONTAP® software after the license grace period expires.

Corrective Action

Contact your sales representative to obtain an NVMe-oF license and add it to the cluster, or remove all NVMe-oF configuration from the cluster.

Syslog Message

The NVMe-oF feature requires a license in this version of ONTAP. NVMe-oF functionality will be disabled in %d days (%s) unless a license is added to the cluster.

Parameters

days_remaining (INT): Days until the license grace period expires.
expiration_date (STRING): Date the license grace period expires.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type is CLUSTER.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID is that of the cluster.

nvmf.graceperiod.expired

Severity

ALERT

Description

This message occurs when the NVMe over Fabrics (NVMe-oF) license grace period expires and NVMe-oF functionality is disabled. NVMe-oF functionality requires a license in this version of ONTAP® software after the license grace period expires.

Corrective Action

Contact your sales representative to obtain an NVMe-oF license, and then add it to the cluster.

Syslog Message

The NVMe-oF feature requires a license in this version of ONTAP and the grace period has expired. NVMe-oF functionality will be disabled until a license is added to the cluster.

Parameters

object_type (STRING): Type of resource object under notification. For this EMS, the object_type is CLUSTER.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID is that of the cluster.

nvmf.graceperiod.start

Severity

ALERT

Description

This message occurs when an NVMe over Fabrics (NVMe-oF) configuration is detected during upgrade to ONTAP® 9.5 software. NVMe-oF functionality requires a license in this version of ONTAP after the license grace period expires.

Corrective Action

Contact your sales representative to obtain an NVMe-oF license, and then add it to the cluster.

Syslog Message

The NVMe-oF feature requires a license in this version of ONTAP. NVMe-oF functionality will be disabled in %d days (%s) unless a license is added to the cluster.

Parameters

days_remaining (INT): Days until the license grace period expires.
expiration_date (STRING): Date the license grace period expires.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type is CLUSTER.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID is that of the cluster.

nvmf.mgmt events

nvmf.mgmt.op.failed

Severity

EMERGENCY

Description

This message occurs when a management operation fails in an NVMe-oF subsystem. The NVMe-oF subsystem on this node will be out of sync with the subsystems on the other nodes in the cluster. This can result in the failure of administrative commands and IO.

Corrective Action

To recover from this condition in HA pair configurations, take over the node with the problem by using the "storage failover takeover" command, and then give back the node by using the "storage failover giveback" command. To recover from this condition in non-HA configurations, reboot the nodes having this condition by using the "system node reboot" command.

Syslog Message

NVMe-oF operation "%s" failed (reason=%s).

Parameters

operation (STRING): Management operation that failed.
reason (STRING): Reason for the failure.

nvmf.mgmt.port.cmd.full

Severity

ERROR

Description

This message occurs when the NVMe-oF command fan-in on a physical port exceeds the port's capabilities. At this point, NVMe-oF I/O throughput and latency could severely degrade.

Corrective Action

To recover from this condition, evaluate the host fan-in on the port, and then take one of the following actions: - Reduce the number of hosts that are logging in to this port. - Reduce the number of NVMe-oF subsystems that are being accessed by the hosts. - Reduce the queue depths and number of queues for hosts connecting to this port. After completing the appropriate mitigation step, you can see the number of command slots currently being used via the fcp_port CM object. Example: statistics show -object fcp_port -counter nvmf_command_slots -instance port.portname -raw

Syslog Message

NVMe-oF port name "%s" command slots full (current number provisioned = %d).

Parameters

portname (STRING): Port name on which the command slots are full.
command_slots (INT): Current number of command slots provisioned on the port.

nvmf.mgmt.port.cmd.threshold

Severity

NOTICE

Description

This message occurs when the NVMe-oF command fan-in on a physical port starts approaching levels close to the port's capabilities.

Corrective Action

Consider adding more NVMe-oF ports or access the NVMe-oF subsystems via other ports instead of using this port. You can see the number of command slots currently being used via the fcp_port CM object. Example: statistics show -object fcp_port -counter nvmf_command_slots -instance port.portname -raw

Syslog Message

NVMe-oF port name "%s" command slots high threshold reached (current number provisioned = %d).

Parameters

portname (STRING): Port name on which the command slots are being filled up.
command_slots (INT): Current number of command slots provisioned on the port.

nvmf.mgmt.roce.port.cq.full

Severity

ERROR

Description

This message occurs when the NVMe/RoCE completion queue entry utilization exceeds the port's capabilities. At this point, NVMe/RoCE I/O throughput and latency could severely degrade.

Corrective Action

To recover from this condition, evaluate the host fan-in on the port, and then take one of the following actions: - Reduce the number of hosts that are logging in to this port. - Reduce the number of NVMe-oF subsystems that are being accessed by the hosts. - Reduce the queue depths and number of queues for hosts connecting to this port.

Syslog Message

Completion queue entries on NVMe/RoCE port "%s" are exhausted (current number used is %d).

Parameters

portname (STRING): Port name on which the completion queue entries are exhausted.
cq_entries (INT): Current number of completion queue entries used on the port.

nvmf.qos events

nvmf.qos.mismatch.policy.r2

Severity

ERROR

Description

This message occurs when an NVMe over Fabrics (NVMe-oF) target subsystem contains namespaces that have different quality of service (QoS) policies which might affect the I/O of the namespaces with higher QoS policies. It is best practice to have the same QoS policy across all namespaces within a subsystem.

Corrective Action

Determine which namespaces exist within the subsystem NQN by using the "vserver nvme subsystem map show" command. Verify that these namespaces share the same QoS policy by using the "vserver nvme namespace show -fields path,qos-policy-group" command.

Syslog Message

NVMe-oF target subsystem NQN %s contains %d namespaces that do not have the same QoS policy.

Parameters

subsystem_nqn (STRING): NVMe Qualified Name (NQN) of the subsystem.
ns_count (INT): Number of namespaces that do not match.

nvmf.qos.mismatched.policy

Severity

ERROR

Description

This message occurs when an NVMe-oF target subsystem contains namespaces that have different QoS policies.

Corrective Action

Determine which volumes exist within the named subsystem NQN by using the "vserver nvme subsystem map show" command. Verify that these volumes share the same QoS policy by using the "volume show -fields name,qos-policy-group" command.

Syslog Message

NVMe-oF target subsystem NQN %s contains %d namespaces that do not have the same QoS policy.

Parameters

subsystem_nqn (STRING): NVMe Qualified Name (NQN) of the subsystem.
ns_count (INT): Number of namespaces that do not match.

nvmf.qos.viodet.regfail

Severity

ERROR

Description

This message occurs when the Quality-of-Service (QoS) subsystem fails to register for updates during initialization due to an internal error (e.g. there is not enough system memory available). As a result, workloads might not meet their minimum throughput or their service-level objectives (SLOs).

Corrective Action

The registration will continue to be retried. If this message continues to occur, perform a planned takeover/giveback sequence to reset the reporting node nondisruptively by using the "takeover -ofnode (reporting_node)" and "giveback -ofnode (reporting_node)" commands. If the problem persists, contact Contact NetApp technical support..

Syslog Message

Failed to register for violation detection updates. QoS min-throughput might operate in a limited capacity.

Parameters

errorCode (INT): Error code that was returned during registration.

nvmf.remote events

nvmf.remote.status.cb

Severity

NOTICE

Description

This message occurs when NVMe over Fabric(NVMeOF) receives a status callback from the connection manager for the Cluster Session Manager(CSM) session is used for remote IO.

Corrective Action

(None).

Syslog Message

NVMeOF remote status callback endpoint=%s, status=%s.

Parameters

> **endpoint** (STRING): CSM session endpoint on which the status callback is received.
> **status** (STRING): Reason for the status callback.

nvmf.roce events

nvmf.roce.lif.create.failed

Severity

> ERROR

Description

> This message occurs when there was an internal error while creating a NVMe over RoCE logical network interface (LIF).

Corrective Action

> To recover from this condition, use the "network interface modify" command to change the status-admin of the LIF to "down" and then back to "up" again.

Syslog Message

> NVMe/RoCE LIF "%s" create operation failed because of an internal error.

Parameters

> **lifname** (STRING): Name of the NVMe/RoCE LIF that encountered the failure.

nvmf.tcp events

nvmf.tcp.lif.create.fail

Severity

> ERROR

Description

> This message occurs when there is an internal error while creating a NVMe-over-TCP (NVMe/TCP) logical network interface (LIF).

Corrective Action

> To recover from this condition, use the "network interface modify" command to change the state of "status-admin" of the LIF to "down" and then back to "up" again.

Syslog Message

> NVMe/TCP LIF "%s" create operation failed because of the following internal error: "%d".

Parameters

> **lifname** (STRING): Name of the NVMe/TCP LIF that encountered the failure.
> **errorCode** (INT): Error code returned during the creation of the LIF.

nvmf.tcp.trans.init.fail

Severity

ERROR

Description

This message occurs when there is an internal error during the NVMe-over-TCP (NVMe/TCP) transport initialization.

Corrective Action

NVMe-oF logs at "/mroot/etc/log/rastrace" need to be collected for further analysis. Trigger an ALL AutoSupport® message by using the following command: "autosupport invoke -node * -message "nvmf.tcp.transport.init.failed" -type all". Also trigger the diagnostic AutoSupport function by using the following command "autosupport invoke-diagnostic -node * -message "nvmf.tcp.transport.init.failed" -subsystems nvmf". Then contact NetApp technical support support.

Syslog Message

NVMe/TCP transport initialization failed because of the following internal error: "%d".

Parameters

errorCode (INT): Error code returned during transport initialization.

nvpm events

nvpm.extend events

nvpm.extend.failed

Severity

ERROR

Description

This message occurs when nvlog client segments cannot be enabled in a partner NVRAM section following a controller failover or MetroCluster® switchover. When this event occurs, the system continues to operate, but with diminished performance due to the increased failover load coupled with decreased NVRAM capacity for logging.

Corrective Action

Perform a storage system giveback operation or a metrocluster switchback operation to restore operating performance.

Syslog Message

Client segments cannot be enabled due to a %s.

Parameters

event (STRING): Event that triggered the extension.
current_state (INT): (debug only) Current Non-volatile RAM Partition Manager (NVPM) state.
expected_state (INT): (debug only) Expected NVPM state.
reason (INT): (debug only) Reason for the extension failure.

nvram events

nvram.battery events

nvram.battery.capacity.low.critical

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery capacity is critically low. To prevent data loss, the system will shut down.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after system power is on, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery capacity is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.capacity.low.warn

Severity

NOTICE

Description

This message occurs when the NVRAM battery capacity is below normal.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after system power is on, replace the NVRAM battery within three months. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery capacity is below normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvram.battery.capacity.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery capacity is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery capacity is normal.

Parameters

(None).

nvram.battery.capacityLow

Severity

ERROR

Description

This message occurs when the NVRAM battery capacity is low. To prevent data loss, the system will schedule a clean chassis shutdown if the problem is not corrected.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. The battery charges automatically. If the capacity is not restored automatically within 30 minutes after system power is on, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery capacity is low (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvram.battery.chargeFET.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery charge FET is on.

Corrective Action

(None).

Syslog Message

The NVRAM battery charge FET is on.

Parameters

(None).

nvram.battery.chargeFET.off

Severity

ERROR

Description

This message occurs when the NVRAM battery charge FET is off. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Shut down the system and power-cycle the controller. If the charge FET remains off, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery charge FET is off. To prevent data loss, the system will shut down %s.

Parameters

countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.charging.nocharge

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery is requesting to be charged but the charger is not charging the battery. To prevent data loss, the system will shut down.

Corrective Action

Reseat the NVRAM battery connector. If the problem occurs again, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery is requesting to be charged but the charger is not charging the battery. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.charging.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery charging status is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery charging status is normal.

Parameters

(None).

nvram.battery.charging.wrongcharge

Severity

ERROR

Description

This message occurs when the NVRAM battery charger is charging the battery even though the battery is not requesting to be charged. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery charger is charging the battery even though the battery is not requesting to be charged. To prevent data loss, the system will shut down %s.

Parameters

countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.current.high

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery charging current is critically high. To prevent data loss, the system will shut down.

Corrective Action

Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery current is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.current.high.warn

Severity

ERROR

Description

This message occurs when the NVRAM battery charging current is above normal. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery current is above normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.current.low

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery detects a short circuit. To prevent data loss, the system will shut down.

Corrective Action

Contact NetApp technical support for assistance with identification and replacement of the appropriate component.

Syslog Message

The NVRAM battery has a short circuit (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.current.low.warn

Severity

ERROR

Description

This message occurs when the NVRAM battery is discharging when it should not. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery current is below normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.current.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery current is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery current is normal.

Parameters

(None).

nvram.battery.dischargeFET.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery discharge FET is on.

Corrective Action

(None).

Syslog Message

The NVRAM battery discharge FET is on.

Parameters

(None).

nvram.battery.dischargeFET.off

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery discharge FET is off. To prevent data loss, the system will shut down.

Corrective Action

Shut down the system and power-cycle the controller. If the discharge FET remains off, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery discharge FET is off. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.endOfLife.high

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery-cycle count indicates that the battery has reached its anticipated life expectancy.

Corrective Action

Replace the NVRAM battery in the next three months.

Syslog Message

The NVRAM battery has reached its anticipated life expectancy.

Parameters

(None).

nvram.battery.endOfLife.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery-cycle count indicates that the battery is well below its anticipated life expectancy.

Corrective Action

(None).

Syslog Message

The NVRAM battery is well below its anticipated life expectancy.

Parameters

(None).

nvram.battery.fault

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery is reporting a fatal fault condition. To prevent data loss, the system will shut down.

Corrective Action

Correct any environmental problems, such as chassis over-temperature. If the battery still reports a fatal fault, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery is reporting a fatal fault condition. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.fault.cleared

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery internal fault condition has been cleared.

Corrective Action

(None).

Syslog Message

The NVRAM battery internal fault condition has been cleared.

Parameters

(None).

nvram.battery.fault.warn

Severity

NOTICE

Description

This message occurs when the NVRAM battery is reporting a non-fatal fault condition.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the condition persists, replace the NVRAM battery in the next three months.

Syslog Message

The NVRAM battery is reporting a non-fatal fault condition.

Parameters

(None).

nvram.battery.fcc.low

Severity

ERROR

Description

This message occurs when the NVRAM battery full-charge capacity is low. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Use the "sysconfig -M" command in 7-Mode or the "run local sysconfig -M" command in clustered Data ONTAP® to get the battery manufacturer date. If the battery is newer than three years old, correct any chronic environmental problems, such as chassis over-temperature. Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery full-charge capacity is low (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.fcc.low.critical

Deprecated

Deprecated as of version 9.2.0 to address the EMS ID length violation.

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery full-charge capacity is critically low. To prevent data loss, the system will shut down.

Corrective Action

Use the "sysconfig -M" command in 7-Mode or the "run local sysconfig -M" command in clustered Data ONTAP® to get the battery manufacturer date. If the battery is newer than three years old, correct any chronic environmental problems, such as chassis over-temperature. Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery full-charge capacity is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

>**reading** (STRING): Reading that triggered this message.
>**num_minutes** (INT): Number of minutes until the system shuts down.

nvram.battery.fcc.low.warn

Severity

>NOTICE

Description

>This message occurs when the NVRAM battery full-charge capacity is below normal.

Corrective Action

>Replace the NVRAM battery in the next three months. Use the "sysconfig -M" command in 7-Mode or the "run local sysconfig -M" command in clustered Data ONTAP® to get the battery manufacturer date. If the battery is newer than three years old, correct any chronic environmental problems, such as chassis over-temperature.

Syslog Message

>The NVRAM battery full-charge capacity is below normal (%s).

Parameters

>**reading** (STRING): Reading that triggered this message.

nvram.battery.fcc.normal

Severity

>INFORMATIONAL

Description

>This message occurs when the NVRAM battery full-charge capacity is normal.

Corrective Action

>(None).

Syslog Message

>The NVRAM battery full-charge capacity is normal.

Parameters

>(None).

nvram.battery.fccLowCrit

Severity

>EMERGENCY

Description

>This message occurs when the NVRAM battery full-charge capacity is critically low. To prevent data loss, the system will shut down.

Corrective Action

Use the "system node run -node local sysconfig -M" command to obtain the battery manufacturing date. If the battery is over three years old, replacement might be necessary. Contact NetApp technical support for troubleshooting assistance.

Syslog Message

The NVRAM battery full-charge capacity is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.fcmto.warn

Severity

NOTICE

Description

This message occurs when the NVRAM battery fast-charge timeout expires. The battery will not be charged until this condition is corrected.

Corrective Action

Shut down the controller and power cycle it from the Service Processor (SP) command line interface (CLI) with the "system power cycle" command. The fast-charge timeout will be reset after the power cycle.

Syslog Message

The NVRAM battery has reached a charging timeout fault. The battery charger will not turn on again until the contoller has been power cycled. Low capacity warning messages begin in %s weeks.

Parameters

num_weeks (STRING): Number of weeks before low capacity warning messages begin.

nvram.battery.not.present

Severity

EMERGENCY

Description

This message occurs when the presence of the NVRAM battery cannot be detected. To prevent data loss, the system will shut down.

Corrective Action

While the system is shut down, ensure that the NVRAM battery is present. If the NVRAM battery is already present, ensure that the connector is seated properly. Power on the system. If this does not correct the problem, replace the NVRAM battery. If the system still does not detect the battery, contact NetApp technical support.

Syslog Message

The presence of NVRAM battery cannot be detected. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.pack.invalid

Severity

ERROR

Description

This message occurs when an unsupported NVRAM battery pack is installed in the system. To prevent data loss, the system initiates a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Shut down the system and replace the NVRAM battery with a correct battery pack.

Syslog Message

The incorrect NVRAM battery is installed. Expected part number is %s. To prevent data loss, the system will shut down in %d minutes.

Parameters

partnum (STRING): Valid battery part number.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.pack.valid

Severity

INFORMATIONAL

Description

This message occurs when a valid NVRAM battery pack is now present and readable.

Corrective Action

(None).

Syslog Message

A valid NVRAM battery pack is present.

Parameters

(None).

nvram.battery.packInvalidHrs

Severity

EMERGENCY

Description

This message occurs when an unsupported NVRAM battery pack is installed in the system. To prevent data loss, the system initiates a clean shutdown if the problem is not corrected.

Corrective Action

Shut down the system and replace the NVRAM battery with the correct battery pack.

Syslog Message

The incorrect NVRAM battery is installed. Expected part number is "%s". To prevent data loss, the system shuts down %s.

Parameters

partnum (STRING): Valid battery part number.
remaining_time (STRING): Number of hours until the system shuts down.

nvram.battery.power.fault

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery is not receiving power. To prevent data loss, the system will shut down.

Corrective Action

Ensure that the NVRAM battery connector is seated properly. Boot up the system. If the NVRAM battery is still not receiving power, replace the NVRAM battery. If the problem persists, contact NetApp technical support.

Syslog Message

The NVRAM battery is not receiving power. To prevent data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.power.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery power is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery power is normal.

Parameters

(None).

nvram.battery.sensor.unreadable

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery state cannot be determined because the sensor cannot be read. To prevent data loss, the system will shut down.

Corrective Action

Ensure that the NVRAM battery connector is seated properly. Power on the system. If the problem is not corrected, replace the NVRAM battery. If the sensor still cannot be read, contact NetApp technical support.

Syslog Message

The NVRAM battery state cannot be determined because the "%s" sensor cannot be read. To prevent data loss, the system will shut down in %d minutes.

Parameters

sensor_name (STRING): Sensor name.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.temp.high

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery temperature is critically high. To prevent data loss, the system will shut down.

Corrective Action

Correct any environmental issues, such as a high ambient temperature. If the NVRAM battery temperature is still above normal, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery temperature is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.temp.high.warn

Severity

NOTICE

Description

This message occurs when the NVRAM battery temperature is above normal. Battery life will be severely compromised.

Corrective Action

Correct any environmental issues, such as a high ambient temperature. If the NVRAM battery temperature is still above normal, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery temperature is above normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvram.battery.temp.low

Severity

ERROR

Description

This message occurs when the NVRAM battery is too cold. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

If the system is excessively cold, allow it to warm gradually. If the NVRAM battery temperature is still too low, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery is too cold (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.temp.low.warn

Severity

NOTICE

Description

This message occurs when the NVRAM battery temperature is below normal.

Corrective Action

Allow the system to warm gradually. If the NVRAM battery temperature is still low, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery temperature is below normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvram.battery.temp.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery temperature is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery temperature is normal.

Parameters

(None).

nvram.battery.unreadHrs

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery state cannot be determined because the sensor is unreadable. If this issue is not resolved within the specified time, the system shuts down to prevent data loss.

Corrective Action

Ensure that the NVRAM battery connector is seated properly. If the problem is not corrected, replace the NVRAM battery. If the sensor is still not readable, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery state cannot be determined because the "%s" sensor is unreadable. To prevent data loss, the system shuts down %s.

Parameters

sensor_name (STRING): Sensor name.
remaining_time (STRING): Remaining time before chassis shutdown.

nvram.battery.voltage.high

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery voltage is critically high. To prevent data loss, the system will shut down.

Corrective Action

Replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

The NVRAM battery voltage is critically high (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.voltage.high.warn

Severity

ERROR

Description

This message occurs when the NVRAM battery voltage is above normal. To prevent data loss, the system will initiate a clean chassis shutdown if the problem is not corrected within 24 hours of first detection.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the NVRAM battery voltage is still above normal, replace the NVRAM battery. If the problem returns or persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery voltage is above normal (%s). To prevent data loss, the system will shut down %s.

Parameters

reading (STRING): Reading that triggered this message.
countdown (STRING): Remaining time before chassis shutdown.

nvram.battery.voltage.low

Severity

EMERGENCY

Description

This message occurs when the NVRAM battery voltage is critically low. To prevent data loss, the system will shut down.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the NVRAM battery voltage is still critically low, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery voltage is critically low (%s). To prevent data loss, the system will shut down in %d minutes.

Parameters

reading (STRING): Reading that triggered this message.
num_minutes (INT): Number of minutes until the system shuts down.

nvram.battery.voltage.normal

Severity

INFORMATIONAL

Description

This message occurs when the NVRAM battery voltage is normal.

Corrective Action

(None).

Syslog Message

The NVRAM battery voltage is normal.

Parameters

(None).

nvram.battery.voltageLowWarn

Severity

ERROR

Description

This message occurs when the NVRAM battery voltage is below normal. To prevent data loss, the system will schedule a clean chassis shutdown if the problem is not corrected.

Corrective Action

Correct any environmental problems, such as chassis over- temperature. If the NVRAM battery voltage is still below normal 30 minutes after environmental problems have been corrected, replace the NVRAM battery. If the problem persists, replace the FRU (field-replaceable unit) NVRAM card or PCM, where the battery is located.

Syslog Message

The NVRAM battery voltage is below normal (%s).

Parameters

reading (STRING): Reading that triggered this message.

nvram.excessive events

nvram.excessive.cecc.errs

Severity

ALERT

Description

This message occurs when excessive correctable error-correcting code (ECC) memory errors are reported by the NVRAM complex.

Corrective Action

Use the "system environment sensors show -hidden true" cluster shell command to view the current "NV Correctable ECC count" and "NV Correctable ECC rate" values. Contact NetApp technical support for further assistance.

Syslog Message

Excessive correctable ECC errors in the NVRAM card.

Parameters

(None).

nvram.excessive.sbit.ecc.errs

Deprecated

Deprecated as of version 9.2.0 to address the EMS ID length violation.

Severity

ALERT

Description

This event is issued to report excessive singlebit ECC errors.

Corrective Action

(None).

Syslog Message

Excessive singlebit ECC errors in the NVRAM card

Parameters

(None).

nvram.flash events

nvram.flash.spare.low

Severity

ALERT

Description

This message occurs periodically when the capacity of the NVRAM flash memory spare blocks is low, before it becomes critically low. This issue typically indicates that the NVRAM hardware is approaching the end of its service life and should be replaced soon.

Corrective Action

Contact NetApp technical support for replacement assistance.

Syslog Message

NVRAM flash memory spare capacity is low: %s.

Parameters

problem (STRING): Information about the NVRAM flash memory spare blocks whose capacity is low and about its condition.

nvram.hw events

nvram.hw.degraded

Severity

ERROR

Description

This message occurs when the NVRAM hardware is degraded.

Corrective Action

Contact NetApp technical support for replacement assistance.

Syslog Message

NVRAM hardware is degraded: %s.

Parameters

reasonText (STRING): Reason the NVRAM hardware is degraded.

nvram.hw.initFail

Severity

EMERGENCY

Description

This message occurs when the Data ONTAP® NVRAM hardware fails to initialize.

Corrective Action

Typically, this type of error is unexpected and indicates that the NVRAM hardware is failing and should be replaced. Contact NetApp technical support for assistance with the replacement.

Syslog Message

NVRAM hardware initialization failed: %s.

Parameters

error (STRING): Description of the error.

nvram.hw.normal

Severity

NOTICE

Description

This message occurs when the NVRAM hardware is operating normally.

Corrective Action

(None).

Syslog Message

NVRAM hardware is operating normally.

Parameters

(None).

nwd events

oauth2 events

oauth2.httpd events

oauth2.httpd.restart.failed

Severity

ERROR

Description

This message occurs when the httpd process fails to restart when the OAuth 2.0 status changes.

Corrective Action

Contact NetApp technical support.

Syslog Message

When the OAuth 2.0 status changed, the httpd process failed to restart for the following reason: %s.

Parameters

reason (STRING): Reason why the httpd process failed to restart when there was a change in the OAuth 2.0 status of the cluster.

oauth2.localroles events

oauth2.localroles.unauth

Severity

ERROR

Description

This message occurs when an authentication fails when the "use-local-roles-if-present" setting is set to "true", but the user information does not exist in ONTAP, or the scope information within the access token does not grant sufficient access in ONTAP.

Corrective Action

Add a local user entry using the "security login create" command, or include the relevant scope information in the access token.

Syslog Message

Authentication of requested user "%s" in SVM "%s" failed because the "use-local-roles-if-present" setting is set to "true"; however, the user information does not exist in ONTAP, or the scope information within the access token does not grant sufficient access in ONTAP.

Parameters

user (STRING): User for whom authentication failed.
vserver (STRING): SVM to which the user belongs.

oauth2.status events

oauth2.status.disabled

Severity

NOTICE

Description

This message occurs when the OAuth 2.0 status of the cluster is changed to DISABLED.

Corrective Action

(None).

Syslog Message

Status of OAuth 2.0 has been changed to DISABLED.

Parameters

(None).

oauth2.status.enabled

Severity

NOTICE

Description

This message occurs when the OAuth 2.0 status of the cluster is changed to ENABLED.

Corrective Action

(None).

Syslog Message

Status of OAuth 2.0 has been changed to ENABLED.

Parameters

(None).

oauth2.wsdb events

oauth2.wsdb.set.failed

Severity

ERROR

Description

This message occurs when setting the SSL trusted server CA path in web services database fails. Potential reason could be that the application is busy or unresponsive. This will impact OAuth2.0 user authentication.

Corrective Action

Ensure all nodes in the cluster are online and healthy by running the "cluster show" command and verifying that the "Health" and "Eligibility" fields displayed as true. If true, retry the operation. If the issue persists,

contact NetApp technical support.

Syslog Message

Failed to set the SSL trusted server CA path in web services database.

Parameters

(None).

object events

object.store events

object.store.available

Severity

NOTICE

Description

This message occurs when the node can connect to the object store again after an "object.store.unavailable" error.

Corrective Action

(None).

Syslog Message

Able to connect to the object store "%s" from node %s.

Parameters

configname (STRING): Object store configuration name.
node_uuid (STRING): UUID of the node.

object.store.c2s.clock.ahead

Severity

ERROR

Description

This message occurs when the cluster has a Commercial Cloud Services (C2S) object store configured, and the clock on a node is skewed forward more than the maximum allowed number of minutes.

Corrective Action

Correct the clock on a node by using the "date" command. Make sure that the nodes sync their clocks through the NTP service by using the "cluster time-service ntp" commands. If the condition persists, contact NetApp technical support.

Syslog Message

The clock on node "%s" is ahead by more than the maximum of %d minutes. Current skew is %d:%d minutes.

Parameters

node_uuid (STRING): UUID of the node.
max_allowed_skew_minutes (INT): Maximum allowed number of minutes by which the clock on a node can be skewed forward.
clock_skew_minutes (INT): Number of minutes by which the clock on a node is skewed forward.
clock_skew_seconds (INT): Number of seconds by which the clock on a node is skewed forward.

object.store.c2s.clock.late

Severity

ERROR

Description

This message occurs when the cluster has a Commercial Cloud Services (C2S) object store configured, and the clock on a node is skewed backwards more than the maximum allowed number of minutes. Data in the C2S object store might become inaccessible for some time because the node might not update expired temporary credentials on time.

Corrective Action

Correct the clock on a node by using the "date" command. Make sure that the nodes synchronize their clocks through the NTP service by using the "cluster time-service ntp" commands. If the condition persists, contact NetApp technical support.

Syslog Message

The clock on node "%s" is behind by more than the maximum of %d minutes. Current skew is %d:%d minutes.

Parameters

node_uuid (STRING): UUID of the node.
max_allowed_skew_minutes (INT): Maximum allowed number of minutes by which the clock on a node can be skewed backwards.
clock_skew_minutes (INT): Number of minutes by which the clock on a node is skewed backwards.
clock_skew_seconds (INT): Number of seconds by which the clock on a node is skewed backwards.

object.store.c2s.notupdated

Severity

EMERGENCY

Description

This message occurs when the node fails to update temporary credentials required for accessing a Commercial Cloud Services (C2S) object store. Data in the C2S object store might not be accessible.

Corrective Action

Verify that LIFs in the appropriate IPSpace are online and functional by using the "network interface show" command. Also, check network connectivity to the CAP through a LIF in the appropriate IPSpace by using the "network ping" command. Additionally, ensure that security certificates for the server certificate authorities (CA) and for the client are installed and valid. If the condition persists, contact NetApp technical support.

Syslog Message

Failed to update temporary credentials that expired on %s in object store "%s" from node "%s". %s. CAP URL: %s

Parameters

credentials_expiration (STRING): Date and time when temporary credentials expired.
object_store_name (STRING): Object store configuration name.
node_uuid (STRING): UUID of the node.
reason (STRING): Reason the temporary credentials were not updated.

cap_url (STRING): Full URL of the request to a C2S Authentication Portal (CAP).

object.store.c2s.updated

Severity

NOTICE

Description

This message occurs when the node updates temporary credentials required for accessing a Commercial Cloud Services (C2S) object store after an "object.store.c2s.notupdated" error.

Corrective Action

(None).

Syslog Message

Successfully updated temporary credentials for object store "%s" from node "%s". New expiration: %s, CAP URL: %s

Parameters

object_store_name (STRING): Object store configuration name.
node_uuid (STRING): UUID of the node.
credentials_expiration (STRING): Updated date and time when temporary credentials expire.
cap_url (STRING): Full URL of the request to a C2S Authentication Portal (CAP).

object.store.certificate.off

Severity

NOTICE

Description

This message occurs when SSL/TLS certificate validation is disabled for an object store configuration.

Corrective Action

Enable certificate validation by using the "storage aggregate object-store config modify -object-store-name <name> -is-certificate-validation-enabled true" command.

Syslog Message

SSL/TLS certificate validation is disabled for an object store configuration %s.

Parameters

object_store_name (STRING): Name of the object store configuration.

object.store.certificate.on

Severity

NOTICE

Description

This message occurs when SSL/TLS certificate validation is enabled for an object store configuration for which it was previously disabled.

Corrective Action

(None).

Syslog Message

SSL/TLS certificate validation is enabled for object store configuration %s.

Parameters

object_store_name (STRING): Name of the object store configuration.

object.store.degraded.mirror.swapped

Severity

NOTICE

Description

This message occurs when a FabricPool's primary object store and its mirror object store are swapped while the mirror object store is in a degraded state.

Corrective Action

(None).

Syslog Message

The primary object store (%s) and the degraded mirror object store (%s) are swapped for FabricPool %s.

Parameters

primary_object_store (STRING): Name of the primary object store before swap.
mirror_object_store (STRING): Name of the mirror object store before swap.
aggr (STRING): Name of the FabricPool.

object.store.force.tier.mcc

Severity

NOTICE

Description

This message occurs when the "-force-tiering-on-metrocluster" parameter is changed for an object store attached to a FabricPool that is in a MetroCluster(tm) configuration.

Corrective Action

(None).

Syslog Message

The "-force-tiering-on-metrocluster" parameter is set to "%s" on the object store "%s" attached to FabricPool "%s".

Parameters

is_force_tier_on_mcc (STRING): Current setting of the "-force-tiering-on-metrocluster" parameter (true or false).
object_store (STRING): Name of the object store.
aggr (STRING): Name of the FabricPool.

object.store.full

Severity

ALERT

Description

This message occurs when the node failed to write data to the specified object store because it is out of space. You may see other EMS notifications from dependent subsystems.

Corrective Action

Examine the object store, check the space settings, and if necessary, create space by adding capacity to the object store.

Syslog Message

Failed to write to object store %s because it is out of space.

Parameters

config_name (STRING): Object store configuration name.

object.store.mirror.added

Severity

NOTICE

Description

This message occurs when the second object store is attached to the FabricPool. After mirror operation, FabricPool contain primary and mirror object store.

Corrective Action

(None).

Syslog Message

A second object store (%s) is added to FabricPool %s with primary object store (%s) as a mirror.

Parameters

mirror_object_store (STRING): Name of the mirror object store.
aggr (STRING): Name of the FabricPool.
primary_object_store (STRING): Name of the primary object store.

object.store.mirror.swapped

Severity

NOTICE

Description

This message occurs when a FabricPool's primary object store and its mirror object store are swapped.

Corrective Action

(None).

Syslog Message

The primary object store (%s) and the mirror object store (%s) are swapped for FabricPool %s.

Parameters

primary_object_store (STRING): Name of the primary object store before swap.
mirror_object_store (STRING): Name of the mirror object store before swap.
aggr (STRING): Name of the FabricPool.

object.store.mirror.unmirror

Severity

NOTICE

Description

This message occurs when the mirror object store is removed from a FabricPool. FabricPool is said to be unmirrored.

Corrective Action

(None).

Syslog Message

The mirror object store (%s) is removed from FabricPool %s with primary object store (%s).

Parameters

mirror_object_store (STRING): Name of the mirror object store.
aggr (STRING): Name of the FabricPool.
primary_object_store (STRING): Name of the primary object store.

object.store.no.proxy

Severity

ALERT

Description

This message occurs when one or more object store configurations have use-http-proxy set to true but no HTTP proxy is configured for the IPspace. This can lead to client I/O failures.

Corrective Action

Create an HTTP proxy configuration for the IPspace or change use-http-proxy to false for the object store configurations associated with that IPspace.

Syslog Message

One or more object store configurations have use-http-proxy set to true but no HTTP proxy configuration was found for the IPspace.

Parameters

ipspace_name (STRING): Name of the IPspace that does not have an HTTP proxy server configured.

object.store.unavailable

Severity

EMERGENCY

Description

This message occurs when the node cannot connect to the object store.

Corrective Action

Verify that your intercluster LIF is online and functional by using the "network interface show" command. Also, check network connectivity to the object store server by using the "ping" command over the destination node intercluster LIF. Additionally, ensure that the configuration of your object store has not changed, and that login and connectivity information is still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Unable to connect to the object store "%s" from node %s. Reason: %s.

Parameters

configname (STRING): Object store configuration name.
node_uuid (STRING): UUID of the node.
reason (STRING): Reason for the failure to connect.

objectattach events

objectattach.hw events

objectAttach.hw.unsupported

Severity

NOTICE

Description

This message occurs when an object store attach failed due to an unsupported hardware configuration.

Corrective Action

(None).

Syslog Message

Object store attach failed because node %s with model %s is not supported by FabricPools.

Parameters

node (STRING): Node that has the unsupported hardware version.
model (STRING): Model information.

objstore events

objstore.host events

objstore.host.unresolvable

Severity

ERROR

Description

This message occurs when the object-store server host name cannot be resolved to an IP address. The object-store client will not be able to communicate with the object-store server without resolving to an IP address.

Corrective Action

Check the DNS configuration to verify that the host name is configured correctly with an IP address.

Syslog Message

Object-store server host name "%s" cannot be resolved to an IP address on node %s.

Parameters

hostname (STRING): Host name of the object-store server.
nodeUuid (STRING): UUID of the node.

objstore.interclusterlifdown events

objstore.interclusterlifDown

Severity

ERROR

Description

This message occurs when the object store client cannot find an operational LIF to communicate with the object store server. This node does not allow object store client traffic until the intercluster LIF is operational.

Corrective Action

Check the intercluster LIFs and route configurations. Use the "network interface show -role intercluster" command to check intercluster LIF status. Verify that the intercluster LIF is configured correctly and is operational. If an intercluster LIF is not configured, use the "network interface create -role intercluster" command to create it.

Syslog Message

Object store client cannot find an operational intercluster LIF (system SVM ID: %d) or an associated route on node with UUID %s, making the object store server unreachable.

Parameters

sysVserverID (INT): System storage virtual machine ID of the intercluster LIF.
nodeUuid (STRING): Universal unique identifier (UUID) of the node.

old events

old.replica events

old.replica.volume

Severity

ALERT

Description

This message occurs when a wafliron operation determines that a volume served as a SnapMirror® destination for a previous release of Data ONTAP®.

Corrective Action

Retry the wafliron operation after the SnapMirror relationship is updated for this volume.

Syslog Message

Wafliron cannot start on aggregate %s because aggregate contains a volume %s which served as a snapmirror destination for a previous release of ONTAP.

Parameters

aggrname (STRING): Name of the aggregate.
volname (STRING): Name of the volume.

openssh events

openssh.unsupported events

openssh.unsupported.cipher

Severity

ERROR

Description

This message occurs when an unsupported cipher is used while attempting an SSH connection.

Corrective Action

Attempt to connect with SSH by using a supported cipher.

Syslog Message

Attempted an SSH connection using unsupported cipher %s.

Parameters

ciphername (STRING): Cipher used for the SSH connection.

openssh.unsupported.hostalgo

Severity

ERROR

Description

This message occurs when an unsupported host key algorithm is used while attempting an SSH connection.

Corrective Action

Attempt to connect with SSH by using a supported host key algorithm.

Syslog Message

SSH connection from %s was attempted using an unsupported host key algorithm %s.

Parameters

ipaddress (STRING): IP address of the remote host that was trying to establish an SSH connection.
hostkeyalgorithm (STRING): Host key algorithm used for the SSH connection attempt.

openssh.unsupported.kexalgo

Severity

ERROR

Description

This message occurs when an unsupported key exchange algorithm is used while attempting an SSH connection.

Corrective Action

Attempt to connect with SSH by using a supported key exchange algorithm.

Syslog Message

Attempted an SSH connection using unsupported key exchange algorithm %s.

Parameters

kexalgorithm (STRING): Key exchange algorithm used for the SSH connection.

openssh.unsupported.MAC

Severity

ERROR

Description

This message occurs when an unsupported Message Authentication Code (MAC) is used while attempting an SSH connection.

Corrective Action

Attempt to connect with SSH by using a supported MAC.

Syslog Message

Attempted an SSH connection using unsupported MAC %s.

Parameters

macname (STRING): MAC used for the SSH connection.

osc events

osc.bucket events

osc.bucket.notFound

Severity

ERROR

Description

This message occurs when the object-store bucket or container is not found while trying to access an object.

Corrective Action

Verify that the bucket or container has been created on the object-store server and the same name has been correctly configured in ONTAP before accessing the bucket.

Syslog Message

Bucket or container "%s" not found on object-store server %s when performing %s operation.

Parameters

bucket (STRING): Name of the bucket or container.
serverHostname (STRING): Hostname of the object-store server.
operation (STRING): Request name.

osc.signaturemismatch events

osc.signatureMismatch

Severity

ERROR

Description

This message occurs when the request signature sent to the object-store server does not match the signature calculated.

Corrective Action

Verify that the secret access key is configured correctly. If it is correct, contact NetApp technical support for assistance.

Syslog Message

Object-store %s operation server-calculated request signature does not match the signature sent to object-store server %s for bucket or container "%s" on node %s. Check the keys and signing method.

Parameters

operation (STRING): Request name.
serverHostname (STRING): Hostname of the object-store server.
bucket (STRING): Name of the object-store bucket.
nodeUuid (STRING): UUID of the node.

osc.tcp events

osc.tcp.connectFailed

Severity

ERROR

Description

This message occurs when ONTAP is unable to connect to the IP address that the object store server hostname resolves to.

Corrective Action

Check if the object store server is listening on this IP address. Check network configuration.

Syslog Message

TCP connection to object store server hostname "%s" fails over IP address "%s" on node "%s".

Parameters

hostname (STRING): Hostname of the object store server.
ipAddress (STRING): IP address over which the TCP connection fails.
nodeUuid (STRING): Universal unique identifier (UUID) of the node.

other events

other.veto events

other.veto.kmgr.keysmissing

Severity

ERROR

Description

This message occurs when a giveback or aggregate relocation operation fails but ONTAP® software cannot determine the specific operation type. The specific operation failed due to the unavailability of volume encryption keys for the encrypted volumes of the aggregate on the partner or destination node.

Corrective Action

Wait a few minutes, and then try the failed operation again. If the problem persists, run the "security key-manager external restore" command for external key manager, or the "security key-manager onboard sync" command for Onboard Key Manager. Then try failed operation again. The commands retrieve the encryption keys for the encrypted volumes of the aggregate from the key manager.

Syslog Message

Relocation or giveback of aggregate %s has failed due to the unavailability of volume encryption keys for the encrypted volumes of the aggregate on the destination (if a relocation operation) or partner node %s (if a giveback operation). Operation code: %d. Details: %s.

Parameters

aggr (STRING): Name of the aggregate that was not relocated or given back.
dest_node (STRING): Name of the destination node that is missing encryption keys.
op_code (INT): Code of the failed operation
details (STRING): Detailed reason for failure.

other.veto.query.timeout

Severity

ERROR

Description

This message occurs when a query operation on the VEK table times out. The specific operation failed because either a network connection issue occured or the query could not be completed within the time limit .

Corrective Action

Verify that there are no network connectivity issue, and then, if the query still times out, consider overriding the veto.

Syslog Message

Relocation or giveback of aggregate "%s" has failed because the restoration status of all of the encryption keys on the destination (if a relocation operation) or partner node (if a giveback operation) "%s" could not be verified within the allotted time.

Parameters

    aggr (STRING): Name of the aggregate that was being queried when the timeout occurred.
    dest_node (STRING): Name of the destination node.

pac events

pac.access events

pac.access

Severity

INFORMATIONAL

Description

This message occurs when the access is denied or unsuccessful for the specified source host, destination host, and network interface combination.

Corrective Action

If you want to provide access, then modify 'options.(protocol).access' to allow access.

Syslog Message

%s: %s from if = %s, source IP = %s, destination IP = %s. Check options %s.access, if desired.

Parameters

protocol1 (STRING): Protocol.
status (STRING): Access status.
ifIpAdr (STRING): Interface address.
srcIpAdr (STRING): Source IP address.
dstIpAdr (STRING): Destination IP address.
protocol2 (STRING): Protocol.

pac.if events

pac.if.getName

Severity

INFORMATIONAL

Description

This message occurs when the protocol access control fails to get the interface name with the address.

Corrective Action

(None).

Syslog Message

%s: getifnamewithaddr() failed with address %s in protocol access control.

Parameters

protocol (STRING): Protocol.
ifAddr (STRING): Interface IP address in internet standard dotted notation.

pac.peer events

pac.peer.getName

Severity

INFORMATIONAL

Description

This message occurs when the protocol access control fails to get the peer name.

Corrective Action

Check Domain Name System (DNS) for possible errors.

Syslog Message

%s: getpeername() failed in protocol access control with %s.

Parameters

protocol (STRING): Protocol.
errMessage (STRING): Internal error message indicating why the peer name could not be obtained.

pac.sock events

pac.sock.getName

Severity

INFORMATIONAL

Description

This message occurs when the protocol access control fails to get the socket name.

Corrective Action

(None).

Syslog Message

%s: getsockname() failed in protocol access control with %s.

Parameters

protocol (STRING): Protocol.
errMessage (STRING): Internal error message indicating why the socket name could not be obtained.

passwd events

passwd.changed events

passwd.changed

Severity
NOTICE

Description
The password for a user has been changed.

Corrective Action
(None).

Syslog Message
passwd for user '%s' changed.

Parameters
username (STRING): The name of the user whose password has just been changed.

pci events

pci.init events

PCI.init.process.timeWarn

Severity

NOTICE

Description

This message occurs to warn about the time taken by PCI initialization when PCI configuration is waiting for outstanding background threads that might still be running.

Corrective Action

(None).

Syslog Message

The PCI initialization process has taken %d seconds.

Parameters

processTime (INT): Time taken by PCI initialization process.

pcie events

pcie.errors events

pcie.errors

Severity

NOTICE

Description

This message occurs when correctable PCI Express errors are detected.

Corrective Action

(None).

Syslog Message

PCI Express correctable error - %s

Parameters

pcie_errors (STRING): String contains details about the PCI Express correctable error(s) and which device(s) was/were the source of error(s).

pcie.link events

pcie.link.errors

Severity

NOTICE

Description

This message occurs when PCI Express link errors are detected.

Corrective Action

(None).

Syslog Message

PCI Express link error - %s

Parameters

pcie_link_errors (STRING): String contains details about the PCI Express link error(s) and which device(s) was/were the source of error(s).

pcnfsd events

pcnfsd.auth events

pcnfsd.auth.failure

Severity

ERROR

Description

This message occurs when the authorization for a user fails due to a corrupted password entry in /etc/passwd.

Corrective Action

Restore the password entry for the user.

Syslog Message

Corrupted password in /etc/passwd file.

Parameters

(None).

pcp events

pcp.linkstatechangesucceed events

pcp.linkStateChangeSucceed

Severity

NOTICE

Description

This message occurs when a change of network port state can now be confirmed after the initial attempt failed due to some race condition. The affected port is now operational.

Corrective Action

(None).

Syslog Message

Link state change for port %s can now be confirmed after the change %u seconds ago.

Parameters

portname (STRING): Port name.
retrySeconds (INT): Number of seconds that the port state change could not be confirmed.

pcp.linkstateinprogress events

pcp.linkStateInProgress

Severity

ERROR

Description

This message occurs when a change of network port state cannot be confirmed because another configuration task is in progress. The change of the network port state happens when the node is booting up or the administrator changes the network port state manually, via the "network port modify -up-admin [true|false]" command. The affected port might still be operating in the state before the attempted change. While this condition exists, any further configuration or status operations will not be possible.

Corrective Action

The link state change request will be retried in the next 5 minutes. If it succeeds, a linkStateChangeSucceed event will be generated. If the issue persists for more than 5 minutes, and the linkStateChangeSucceed event is not generated, there is a configuration task that has not proceeded correctly. The system state will be automatically collected and and an AutoSupport® callhome event will be generated. The node from which this event was triggered needs to be rebooted to clear the issue.

Syslog Message

Link state change cannot be confirmed on port %s.

Parameters

portname (STRING): Port name.

perclientstorepoolthreshold events

perclientstorepoolthreshold events

PerClientStorePoolThreshold

Severity

NOTICE

Description

This message occurs when one of the NFSv4 clients is consuming more resources of a particular store pool type.

Corrective Action

(None).

Syslog Message

NFSv4 client %s has consumed more resources for store pool type %s.

Parameters

clientIpAddress (STRING): IP address of the client machine.
poolName (STRING): NFSv4 store pool type.

perf events

perf.ccma events

perf.ccma.off

Severity

ALERT

Description

This message occurs when the performance archiver is not enabled, which makes it difficult for technical support to troubleshoot performance issues on the system.

Corrective Action

Enable the performance archiver to track system activity and allow technical support to troubleshoot performance problems by running the "statistics archive config modify -is-enabled true" command. Note that the performance archiver is disabled during takeover and giveback, and in a failure scenario when the archiver loses communication with the Counter Manager Quota Management system; these two scenarios do not resolve by administratively enabling the archiver.

Syslog Message

Performance archiver is not enabled for datastore '%s'.

Parameters

datastore (STRING): Datastore name.

perf.ccma.startupFailed

Severity

ALERT

Description

This message occurs when the performance archiver fails to startup.

Corrective Action

(None).

Syslog Message

Performance archiver failed to startup.

Parameters

reason (STRING): Reason for failure to startup

perf.ccma.stop

Severity

NOTICE

Description

This message occurs when the performance archiver is disabled.

Corrective Action

(None).

Syslog Message

Performance archiver stopped.

Parameters

(None).

perfstatd events

perfstatd.dir events

perfstatd.dir.permission

Severity

ERROR

Description

This message occurs when the perfstat daemon (perfstatd) startup fails due to improper permissions for the '/mroot/etc/log' directory. This failure impacts the continuous archiving of performance data that technical support uses to troubleshoot performance issues.

Corrective Action

Verify that the permissions of the '/mroot/etc/log' directory are 'rwxr-xr-x' by executing the 'fsecurity show /vol/vol0/etc/log' command from the nodeshell. After correcting the permissions for this directory, restart perfstatd by executing the 'spmctl -e -h perfstatd' command from the freebsd shell.

Syslog Message

The perfstat daemon startup failed due to improper directory permissions.

Parameters

(None).

perfstatd.disk events

perfstatd.disk.full

Severity

ERROR

Description

This message occurs when the perfstat daemon (perfstatd) startup fails due to a full disk.This failure impacts the continuous archiving of performance data that technical support uses to troubleshoot performance issues.

Corrective Action

Verify that the '/mroot' file system is full by executing the 'df /mroot' command from the freebsd shell. After clearing some space, restart perfstatd by executing the 'spmctl -e -h perfstatd' command from the freebsd shell.

Syslog Message

The perfstat daemon startup failed due to a full disk.

Parameters

(None).

perfstatd.start events

perfstatd.start.unsuccessful

Severity

ERROR

Description

This message occurs when the perfstat daemon (perfstatd) startup fails. This failure impacts the continuous archiving of performance data that technical support uses to troubleshoot performance issues.

Corrective Action

The startup failure might be due to improper permissions for the '/mroot/etc/log' directory or a full disk. Verify that the permissions of the '/mroot/etc/log' directory are 'rwxr-xr-x' by executing the 'fsecurity show /vol/vol0/etc/log' command from the nodeshell. Verify that the '/mroot' file system is not full. After fixing the cause of the failure, restart perfstatd by executing the 'spmctl -e -h perfstatd' command from the freebsd shell.

Syslog Message

The perfstat daemon startup failed.

Parameters

(None).

pha events

pha.add events

pha.add.dev.limitExceeded

Severity

ERROR

Description

This message occurs when an attempt to add a passthrough host adapter (PHA) disk to a virtual disk adapter fails because the supplied disk number exceeds the maximum supported disk ID.

Corrective Action

Reduce the number of devices connected to Data ONTAP® and retry this operation.

Syslog Message

Failed to add a device with unit number %d to virtual disk adapter. Reason: Supplied disk number exceeds the max number of supported disks.

Parameters

disk_num (INT): Unit number for the rejected disk.

pha.dev events

pha.dev.get.capacity.failed

Severity

ERROR

Description

This message occurs when ONTAP®software fails to get a drives's capacity after an extended wait. As a result, cannot add the drive.

Corrective Action

Ensure that the hypervisor's device is still connected and accessible by ONTAP.

Syslog Message

Failed to get drive capacity for device %s%d after %d seconds.

Parameters

devname (STRING): Name of the device.
unit (INT): Unit number of the device.
wait_time (INT): Number of seconds waited for capacity information.

pha.dev.get.uuid.bioReadErr

Severity

ERROR

Description

This message occurs when block read operation for the passthrough host adapter (PHA) disk header returns an error. As a result, Data ONTAP® is unable to add or manage this device.

Corrective Action

Ensure that the device is still connected to and accessible by Data ONTAP® and retry the operation.

Syslog Message

Failed to get UUID for device %s%d. Reason: Block read operation returned an error: 0x%x.

Parameters

devname (STRING): Name of the device.
unit (INT): Unit number of the device.
bio_error (INTHEX): Error code returned by block read operation.

pha.dev.get.uuid.devNotAdded

Severity

ERROR

Description

This message occurs when Data ONTAP® fails to get disk header after multiple retries and finally give up. As a result, Data ONTAP® is unable to add the disk.

Corrective Action

Ensure that the device is still connected to and accessible by Data ONTAP® and retry the operation.

Syslog Message

Failed to get disk header for device %s%d. Number of bioerr %d Retries %d.

Parameters

devname (STRING): Name of the device.
unit (INT): Unit number of the device.
bioerr_cnt (INT): Number of BIO errors.
retry_cnt (INT): Number of retries.

pha.dev.get.uuid.devNotExist

Severity

ERROR

Description

This message occurs when Data ONTAP® fails to retrieve the the descriptor for the passthrough host adapter (PHA) device. As a result, Data ONTAP® fails to read the header on this device and is unable to add or manage it.

Corrective Action

Ensure that the device is still connected to and accessible by Data ONTAP® and retry the operation.

Syslog Message

Failed to retrieve the descriptor for device %s%d. Reason: %s.

Parameters

>**devname** (STRING): Name of the device.
>**unit** (INT): Unit number of the device.
>**error** (STRING): Error message.

pha.dev.header.err

Severity

>ERROR

Description

>This message occurs when a disk header operation encounters a device error. As a result, ONTAP® might be unable to add or manage this device.

Corrective Action

>Ensure that the device is still connected to and accessible by ONTAP. If the device is reported as healthy by the hypervisor, contact NetApp technical support to open a support case to investigate the underlying cause.

Syslog Message

>Functional operation "%s" failed for device %s%d. Error number: 0x%x, CAM status: 0x%x, SCSI (status: 0x%x, sense key: x%x, sense code: 0x%x, additional sense code: 0x%x, additional sense code qualifier: 0x%x).

Parameters

>**operation** (STRING): Name of the functional operation.
>**devname** (STRING): Name of the device.
>**unit** (INT): Unit number of the device.
>**bio_error** (INTHEX): Error code returned by the device.
>**cam_status** (INTHEX): Common Access Method (CAM) status code returned by the device.
>**scsi_status** (INTHEX): SCSI status code returned by the device, if available.
>**error_code** (INTHEX): SCSI error code returned by the device, if available.
>**sense_key** (INTHEX): SCSI sense key returned by the device, if available.
>**asc** (INTHEX): SCSI additional sense code returned by the device, if available.
>**ascq** (INTHEX): SCSI additional sense code qualifier returned by the device, if available.

pha.dev.uuidWriteHeaderErr

Severity

>ERROR

Description

>This message occurs when Data ONTAP® fails to write the header to the passthrough host adapter (PHA) device. As a result, Data ONTAP® is unable to add or manage this device.

Corrective Action

>Ensure that the device is still connected to and accessible by Data ONTAP® and retry the operation.

Syslog Message

>Failed to write header to the device %s%d.

Parameters

    devname (STRING): Name of the device.
    unit (INT): Unit number of the device.

pha.disk events

pha.disk.type.changed

Severity

    ERROR

Description

    This message occurs when the backing disk type for an existing disk was changed from the cloud API.

Corrective Action

    Check whether the disk type of the failed disk was changed. Change the backing disk type to the original value.

Syslog Message

    Backing disk type changed for Disk: %s, Volume: %s. Error: %s.

Parameters

    d_name (STRING): Disk name
    d_id (STRING): Disk ID
    errmsg (STRING): Indicating the stage at which the disk lookup failed.

pha.disk.type.lookup.failed

Severity

    ERROR

Description

    This message occurs when the backing disk type lookup fails.

Corrective Action

    Check that the disk type of the failed disk is supported. Remove the affected disk.

Syslog Message

    Failed to recognize backing disk type for Disk: %s, Volume: %s. Error: %s.

Parameters

    d_name (STRING): Disk name.
    d_id (STRING): Disk ID
    errmsg (STRING): Indicating the stage at which the disk lookup failed.

pha.obj events

pha.obj.blobGone

Severity

NOTICE

Description

This message occurs when ONTAP® detects that a blob has been deleted from a container.

Corrective Action

If the identified blob was not intentionally deleted, attempt to recover it with the object store provider.

Syslog Message

Blob "%s" is no longer seen in object store, "%s".

Parameters

blob (STRING): Object name.
configName (STRING): Object store configuration name.

pha.obj.scanFailure

Severity

ERROR

Description

This message occurs when ONTAP® cannot get a list of objects from the object store server.

Corrective Action

If the error text indicates an authentication problem, verify that the stored credentials are correct by using the "system node virtual-machine disk-object-store modify" command. If the error text describes a connection problem, determine the IP address for the object store server. If the address reported in this event does not match, examine the DNS cache for errors by using the "system node virtual-machine disk-object-store dns-cache show" command. If the address does match, check the status of both the object store server and the network.

Syslog Message

ONTAP could not get a list of objects from the object store, "%s", at "%s", using IP address "%s" with error: %s.

Parameters

configName (STRING): Object store configuration name.
server (STRING): Object store server name.
ipAddress (STRING): Object store IP address.
error (STRING): Error string.

pha.obj.scanSuccess

Severity

NOTICE

Description

This message occurs when ONTAP® succeeds at retrieving a list of objects from the object store server after reporting a failure.

Corrective Action

(None).

Syslog Message

ONTAP successfully retrieved a list of objects from the object store, "%s".

Parameters

configName (STRING): Object store configuration name.

pha.obj.storeAvailable

Severity

NOTICE

Description

This message occurs when ONTAP® can communicate with the object store server.

Corrective Action

(None).

Syslog Message

ONTAP successfully communicated with the object store, "%s".

Parameters

configName (STRING): Object store configuration name.

pha.obj.storeCreateFailed

Severity

ERROR

Description

This message occurs when ONTAP® software cannot create the object store configuration.

Corrective Action

Verify that the values provided for the create operation are correct. ONTAP supports either the HTTPS or HTTP protocol and not a mixed configuration. The value for the port should be the same as the first object store's (object_store0) port. Verify the first object store's port by using the "system node virtual-machine disk-object-store show -object-store-name object_store0 -node node_name" command, which will display the port as "Port Number of the Object Store".

Syslog Message

ONTAP could not create the object store, "%s", due to reason: %s.

Parameters

configName (STRING): Object store configuration name.
reason (STRING): An object store create operation was attempted with a port value that wasn't equal to that of object_store0.

pha.obj.storeDeleted

Severity

NOTICE

Description

This message occurs when ONTAP® finishes deleting the connection to the object store server.

Corrective Action

(None).

Syslog Message

ONTAP has removed the object store configuration, "%s".

Parameters

configName (STRING): Object store configuration name.

pha.obj.storeDeleting

Severity

NOTICE

Description

This message occurs when ONTAP® begins to tear down the connection to the object store server.

Corrective Action

(None).

Syslog Message

ONTAP began removing the object store configuration, "%s".

Parameters

configName (STRING): Object store configuration name.

pha.obj.storeUnavailable

Severity

EMERGENCY

Description

This message occurs when ONTAP® cannot communicate with the object store server.

Corrective Action

Verify that the configuration of the object store, including the login credentials, is still accurate by using the "system node virtual-machine disk-object-store show" command. Check the network status for connectivity errors.

Syslog Message

ONTAP could not communicate with the object store, "%s".

Parameters

configName (STRING): Object store configuration name.

pha.obj.storeUpdateFailed

Severity

ERROR

Description

This message occurs when ONTAP® cannot update the object store configuration.

Corrective Action

Verify that the updates are correct. Then create a new object store configuration with the updated fields. Delete the old configuration after ONTAP detects the new disk paths.

Syslog Message

ONTAP could not update the object store configuration, "%s", due to reason: %s.

Parameters

configName (STRING): Object store configuration name.
reason (STRING): Reason for the failure.

pha.obj.throttle

Severity

NOTICE

Description

This message occurs when the passthrough host adapter object (PHA Obj) throttled on the disks due to receiving the OSC_CONNECTION_UNAVAILABLE, OSC_TIMEOUT or AZURE_SERVER_BUSY error from OSC.

Corrective Action

(None).

Syslog Message

PHA Obj throttled %llu times on the blob %s in the container %s due to the "%s".

Parameters

counter (LONGINT): The throttle counter.
blobName (STRING): The throttling blob name.
containerName (STRING): The throttling container name.
throttleReason (STRING): The error which triggered throttling.

pha.obj.unknownTier

Severity

ERROR

Description

This message occurs when ONTAP® does not recognize the tier of a page blob.

Corrective Action

Change the blob tier to one that ONTAP will recognize: P10, P15, P20, P30, P40, P50, or P60.

Syslog Message

ONTAP did not recognize tier "%s" of blob "%s", on object store "%s". Assuming Standard Storage Tier.

Parameters

tier (STRING): Blob tier.
blob (STRING): Blob name.
configName (STRING): Object store configuration name.

pha.vsa events

pha.vsa.uuid.too.long

Severity

ALERT

Description

This message occurs when ONTAP® software detects a device with a device descriptor length greater than 40 characters. Such devices are not presented to ONTAP.

Corrective Action

Detach the device from all ONTAP virtual machines, and then delete it. Create a similar device with a descriptor length less than or equal to 40 characters, and then attach it to the ONTAP virtual machines.

Syslog Message

The device descriptor %s is too long and was not presented to ONTAP.

Parameters

Descriptor (STRING): Descriptor of the device.

phf events

phf.manage events

phf.manage.add.upcall

Severity

NOTICE

Description

This message occurs when peripheral host bus adapter freebsd (phf) detects a device to be added to the system.

Corrective Action

(None).

Syslog Message

Added unit %d type %d.

Parameters

unit (INT): Unit number.
pman_disk_type (INT): Disk type.

platform events

platform.chsismobonamediff events

platform.ChsisMoboNameDiff

Severity

ERROR

Description

This message occurs when the product name on the chassis is different from the one on the controller.

Corrective Action

Place the controller in a compatible chassis.

Syslog Message

The product names on the chassis (%s) and the controller (%s) are different. Contact NetApp technical support to resolve this.

Parameters

prodNameChsis (STRING): Product name on the chassis.
prodNameCtrlr (STRING): Product name on the controller.

platform.dimmconfigerror events

platform.dimmConfigError

Severity

ALERT

Description

This message occurs when the DIMM configuration of the controller is different from the configuration supported by this model. This often occurs when an incorrect DIMM memory size is used in a DIMM slot.

Corrective Action

Place correctly sized and supported DIMMs in the designated slots. For replacement instructions, search the NetApp technical support support web site using the keywords "replacing", "DIMM", and "system".

Syslog Message

Memory DIMM configuration mismatch in slots %s.

Parameters

slots (STRING): List of slots with the incorrect DIMM.

platform.insufficientmemory events

platform.insufficientMemory

Severity

EMERGENCY

Description

This message occurs when there is not enough system memory for the system to function, likely due to slots that contain incorrect, failed, or missing DIMMs.

Corrective Action

Replace the incorrect, failed, or missing DIMMs.

Syslog Message

Not enough system memory for the system to function. Detected %d GB, expected %d GB. Check DIMMs slots %s.

Parameters

mem_detected (INT): Amount of system memory that was detected.
mem_expected (INT): Amount of system memory that this model supports.
slots (STRING): List of slots with incorrect, failed, or missing DIMMs.

platform.nopartnerpresent events

platform.noPartnerPresent

Severity

NOTICE

Description

This message occurs when the HA partner's presence cannot be read via the GPIO ports on the controller.

Corrective Action

(None).

Syslog Message

Controller partner's presence could not be read via GPIO. Read partner ID: %d.

Parameters

partner_id (INT): The partner ID that was read from the GPIO pins.

platform.reducedmemory events

platform.reducedMemory

Severity

ALERT

Description

This message occurs when system memory is less than expected for this model, likely due to slots that contain incorrect, failed, or missing DIMMs.

Corrective Action

Replace the incorrect, failed, or missing DIMMs.

Syslog Message

System memory (%d GB) is less than expected (%d GB). Check DIMMs slots %s.

Parameters

mem_detected (INT): Amount of system memory that was detected.
mem_expected (INT): Amount of system memory that this model supports.
slots (STRING): List of slots with incorrect, failed, or missing DIMMs.

pn events

pn.driver events

pn.driver.send.latency.high

Severity

NOTICE

Description

This message occurs when the pass-through network layer detects driver send latencies that are too high, indicating a noisy neighbor issue in cloud providers that is causing an I/O latency spike.

Corrective Action

(None).

Syslog Message

Pass-through network layer is reporting an average driver send latency of %d microseconds, which might cause an I/O latency spike.

Parameters

latency (INT): Average driver send latency in microseconds.

pn.mvia events

pn.mvia.freeq.empty

Severity

NOTICE

Description

This message occurs when the pass-through network layer depletes its supply of buffers for sending traffic, which could cause an Interconnect timeout.

Corrective Action

(None).

Syslog Message

Pass-through network layer free queue empty for %d msecs, which might cause Interconnect timeout.

Parameters

time (INT): Duration of depletion in msecs.

pn.mvia.nic.reset

Severity

NOTICE

Description

This message occurs when the passthrough network layer detects network interface card (NIC) state change caused by an NIC reset.

Corrective Action

(None).

Syslog Message

Passthrough network layer detected NIC %s has changed its operational state. New state: %s.

Parameters

nic_name (STRING): NIC name.
nic_state_change (STRING): NIC state change.

pn.mvia.send.starvation

Severity

NOTICE

Description

This message occurs when the pass-through network layer takes too long to execute the logic for sending traffic, which could cause an Interconnect timeout.

Corrective Action

(None).

Syslog Message

Pass-through network layer "send" thread not run for %d msecs, which might cause Interconnect timeout.

Parameters

time (INT): How long the pass-through network layer has not executed the logic for sending traffic.

probedone events

probedone.inquiry events

probedone.inquiry.failed

Severity

ERROR

Description

This message occurs when the inquiry data fails the comparison at the domain validation (DV) step.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

In path %s, inquiry data fails comparison at the domain validation DV%d step of protocol type %d.

Parameters

path (STRING): Device path.
inquirydata (INT): Comparison between the inquiry data failure and the domain validation, and whether the probe inquiry domain validation is type 1 or 2.
protocol_type (INT): Protocol type.

protocol events

protocol.exportcheckfailed events

protocol.exportCheckFailed

Severity

ERROR

Description

This message occurs when there is an export check failure due to, either export-policy configuration not allowing access, or a non-existing filesystem/junction access attempt.

Corrective Action

Check the export policy configuration or filesystem name depending on the reason due to which export access check failed.

Syslog Message

Export access check failed on Vserver %s for client %s, trying to access volume %s, having policy %s, via protocol %s. Reason: %s

Parameters

vserver (STRING): Name of the Vserver where the issue occurs.
clientIP (STRING): Client for which the export access check failure happened.
volumeName (STRING): Volume name for which export access check failed.
policyName (STRING): Name of the export policy from which export access check failed.
protocol (STRING): Access protocol used by client for filesystem access.
reason (STRING): Reason for which export access check failed.

prov events

prov.rollback events

prov.rollback.fail.cmd

Severity

ERROR

Description

This message occurs when ONTAP® software cannot complete a rollback of a provisioning operation sequence that failed. Depending on the action that failed, objects might need to be created, deleted, or modified to bring the system back to a consistent state.

Corrective Action

Resolve the error and attempt the failed command again. If the problem persists, contact NetApp technical support to resolve the rollback failure. It is possible that other related rollback actions have also failed. Check for other 'prov.rollback.fail.*' messages with similar time stamps, and perform the suggested corrective actions in the same order that the messages occurred.

Syslog Message

Failed to roll back an action performed by the provisioning engine. Command: "%s". Reason: %s.

Parameters

failed_command (STRING): Command that failed.
error (STRING): Error that the provisioning engine encountered.

prov.rollback.fail.obj

Severity

ERROR

Description

This message occurs when ONTAP® software cannot complete a rollback of a provisioning operation sequence that failed. Depending on the action that failed, objects might need to be created, deleted, or modified to bring the system back to a consistent state.

Corrective Action

Contact NetApp technical support to resolve the rollback failure. It is possible that other related rollback actions have also failed. Check for other 'prov.rollback.fail.*' messages with similar time stamps, and perform the suggested corrective actions in the same order that the messages occurred.

Syslog Message

Failed to roll back an action performed by the provisioning engine. Action: "%s". Object: "%s". Fields: "%s". Reason: %s.

Parameters

action (STRING): Attempted action.
object (STRING): Type of object.
fields (STRING): Fields of the object.

error (STRING): Error that the provisioning engine encountered.

prov.rollback.fail.rest

Severity

ERROR

Description

This message occurs when ONTAP® software cannot complete a rollback of a provisioning operation sequence that failed. Depending on the action that failed, objects might need to be created, deleted, or modified to bring the system back to a consistent state.

Corrective Action

Resolve the error and attempt the failed REST API again. If the problem persists, contact NetApp technical support to resolve the rollback failure. It is possible that other related rollback actions have also failed. Check for other 'prov.rollback.fail.*' messages with similar time stamps, and perform the suggested corrective actions in the same order that the messages occurred.

Syslog Message

Failed to roll back an action performed by the provisioning engine. API: curl -X %s 'https://<mgmt-ip>%s' -H 'accept: application/hal+json' -d '%s' Reason: %s.

Parameters

failed_uri (STRING): REST API resource that failed.
failed_body (STRING): REST API JSON body that failed.
failed_method (STRING): REST API method that failed.
error (STRING): Error that the provisioning engine encountered.

pubsub events

pubsub.kernel events

pubsub.kernel.flow.control.enabled

Deprecated

This event is deprecated as of 9.10.0.

Severity

ERROR

Description

This message will not be published as flow control is enabled on kernel pubsub.

Corrective Action

Check the network connectivity to the broker and ensure the broker is running properly.

Syslog Message

Kernel pubsub failed to send message with topic %s, object %s, object UUID %s and operation %s. Flow control is enabled.

Parameters

topic (STRING): Topic of the message.
object (STRING): Object of the message.
object_uuid (STRING): Object UUID of the message.
operation (STRING): Operation of the message.

pubsub.kernel.send.msg.failed

Deprecated

This event is deprecated as of 9.10.0.

Severity

ERROR

Description

This message occurs when kernel pubsub fails to send a message to the broker.

Corrective Action

Check the network connectivity to the broker and ensure the broker is running properly.

Syslog Message

Kernel pubsub failed to send message with topic %s, object %s, object UUID %s, operation %s, and error code %d.

Parameters

topic (STRING): Topic of the message.
object (STRING): Object of the message.
object_uuid (STRING): Object UUID of the message.

operation (STRING): Operation of the message.
error_code (INT): Error code associated with the failure.

pvif events

pvif.badmtu events

pvif.badMtu

Severity

ERROR

Description

This message occurs when the interface group (ifgrp) driver fails to update the MTU size on a member port because it does not support the requested configuration.

Corrective Action

Use the "ifgrp remove-port" command to remove the member port that does not support the requested MTU size, or use the "broadcast-domain remove-ports" and "broadcast-domain add-ports" commands to assign the ifgrp to a broadcast domain whose MTU are supported on all member ports.

Syslog Message

ifgrp %s: unable to update MTU size to %d on %s.

Parameters

ifgrpName (STRING): Name of the ifgrp.
mtuSize (INT): Requested MTU size.
portName (STRING): Name of the member port.

pvif.lacp events

pvif.lacp.outofsync

Severity

ALERT

Description

This message occurs when a link is operationally up and cannot be aggregated into its configured ifgrp within the time limit. This might occur due to misconfiguration, physical link error, or implementation limits on the number of links allowed.

Corrective Action

Verify that the switch configuration is correct, and that the physical links are operating without error.

Syslog Message

ifgrp %s, port %s cannot synchronize with the LACP aggregate.

Parameters

vifName (STRING): Name of the ifgrp.
linkName (STRING): Name of the link.

qos events

qos.bgtask events

qos.BgTask.Throttle

Severity

NOTICE

Description

This message occurs when the Quality of Service (QoS) subsystem starts throttling requests to help critical background tasks meet their min-throughput and their service-level objectives (SLOs).

Corrective Action

(None).

Syslog Message

QoS throttle limit for background task: "%s" with id: "%u" is %u IOPS.

Parameters

bg_task_name (STRING): Name of the Background Task that requested QoS to throttle requests.
bg_task_id (INT): ID of the Background Task that requested QoS to throttle requests.
limit (INT): The limit value enforced in terms of IOPS and a block size of 4K.

qos.mgmt events

qos.mgmt.operation.failed

Severity

ERROR

Description

This message indicates that cluster quality of service (QoS) cannot propagate settings to the classification and control components on the specified node. This might be a transient condition, or it might indicate insufficient resources to complete the operation. QoS workload classification and control might behave incorrectly on this node.

Corrective Action

Inspect the management gateway process log for errors indicating why the command failed. If this behavior persists, contact NetApp technical support.

Syslog Message

QoS configuration update failed on node %s: %s

Parameters

node (STRING): Node on which operation failed.
error (STRING): Error description.

qos.min events

qos.min.tput.not.honoured.for.sync

Severity

NOTICE

Description

This message occurs when minimum throughput value is not honoured if adaptive QoS is set on a SnapMirror Synchronous protected storage object.

Corrective Action

(None).

Syslog Message

Adaptive QoS policy "%s" set on SnapMirror Synchronous volume "%s" or any of it's storage object has a min-throughput value set. SnapMirror Synchronous does not support min-throughput hence min-throughput setting will not be honoured from the policy, only max-throughput setting will be honoured.

Parameters

policy (STRING): Policy group name.
volume (STRING): Volume name.

qos.mintp events

qos.mintp.high.intrconct.lat

Severity

NOTICE

Description

This message occurs when the Quality of Service (QoS) subsystem notices high latency in the cluster interconnect for workloads associated with minimum-throughput policy groups. As a result, workloads might not be able to meet their minimum-throughput values.

Corrective Action

Consider using the "qos statistics" CLI command to monitor the workloads and policy groups that have high cluster interconnect latency and also do not meet their minimum-throughput Service Level Objectives (SLOs). Either avoid the interconnect by moving workloads or LIFs, or reduce contention for the interconnect by applying QoS maximum throughput constraints on interfering workloads.

Syslog Message

QoS has noticed high cluster interconnect latency. Some workloads and policy groups might not meet their specified minimum-throughput.

Parameters

(None).

qos.monitor events

qos.monitor.memory.abated

Severity

NOTICE

Description

This message occurs when the Quality of Service (QoS) subsystem's dynamic memory is no longer at its limit for the current platform hardware. All QoS features will operate as normal.

Corrective Action

(None).

Syslog Message

QoS dynamic memory is no longer at its limit. All QoS features will operate as normal.

Parameters

subject (STRING): QoS Memory message title.
count (INT): Number of times this has happened.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

qos.monitor.memory.maxed

Severity

ERROR

Description

This message occurs when the Quality of Service (QoS) subsystem's dynamic memory hits its limit for the current platform hardware. As a result, some QoS features might operate in a limited capacity.

Corrective Action

Some active workloads or streams should be deleted to free up memory. Use the 'statistics show -object workload -counter ops' command to determine which workloads are active. Active workloads will show non-zero ops. Then use the 'workload delete [workload name]' command multiple times to remove particular workloads. Alternatively, use the 'stream delete -workload [workload name] *' command to delete the associated streams from the active workload.

Syslog Message

QoS dynamic memory has reached its limit. Some QoS features might operate in a limited capacity.

Parameters

subject (STRING): QoS Monitor message title.
count (INT): Number of times this has happened.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

qos.onnix events

qos.onnix.classf.failure

Severity

ERROR

Description

This message occurs when the classification subsystem for Quality of Service (QoS) fails. Any limits that are configured for volumes will not be applied.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

QoS classification failed. Any limits that are configured for volumes will not be applied.

Parameters

(None).

qos.qtree events

qos.qtree.fh.error.report

Severity

ERROR

Description

This message occurs when the Quality of Service (QoS) subsystem recognizes that an older version of a filehandle is still being used to access a qtree associated with a QoS policy group. Use of this filehandle will impact the ability of the qtree workload to meet its service-level objectives (SLOs).

Corrective Action

Use the "qos workload show -wid workloadID" command to show the affected qtree. Use the "network connections active show -local-port 2049" command to show all of the active NFS protocol connections to each node. Verify that, after a QoS policy group was associated with the qtree, each client did in fact remount all of its mount points with the qtree. If any client did not remount, first determine which Vserver exported the mount points by using the "volume qtree show -fields qtree,vserver" command. Next stop all applications that are using the qtree and unmount all exports from the Vserver in question. Finally, remount the exports and restart the applications.

Syslog Message

QoS qtree violation for qtree with workload ID = %u.

Parameters

wid (INT): The QoS workload ID of the qtree.

qos.viodet events

qos.VioDet.maxThrottle

Severity

NOTICE

Description

This message occurs when the Quality of Service (QoS) subsystem has already throttled requests severely to help workloads meet their min-throughput and their service-level objectives (SLOs) and will not throttle any further. Possible reasons for severe throttling could be that there are bully workloads or insufficient resources, which means the system cannot support the specified targets in the SLOs.

Corrective Action

Collect ONTAP statistics counters and use 'qos statistics' CLI command on the node to monitor the workload and policy group to find the workloads that do not meet their min-throughput SLOs. The cpu utilization and aggregate utilization can be used to help identify if there is sufficient load or if the system is over-provisioned. First validate if the policy group client generates sufficient load. If the system is over provisioned, identify the critical resources (cpu, memory, network, disk, etc.) that could lead to the violation, or identify the hot spot in a clustered system and move workloads around to avoid the hot spot or limit bully workloads by setting a QoS limit to reduce the contention.

Syslog Message

QoS violation limit for %s %s is %u IOPS.

Parameters

object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.
vdlimit (INT): Current limit value in terms of IOPS and a block size of 4K.

qos.VioDet.Mintput.Throttle

Severity

INFORMATIONAL

Description

This message occurs when the Quality of Service (QoS) subsystem starts throttling requests to help workloads meet their min-throughput and their service-level objectives (SLOs). Possible reasons for throttling could be that there are bully workloads or insufficient resources, which means the system cannot support the specified targets in the SLOs.

Corrective Action

Collect ONTAP statistics counters and use 'qos statistics' CLI command on the node to monitor the workload and policy group to find the workloads that do not meet their min-throughput SLOs. The CPU utilization and aggregate utilization can be used to help identify if there is sufficient load or if the system is over-provisioned. Firstly validate if the policy group client generates sufficient load. If the system is over provisioned, identify the critical resources (CPU, memory, network, disk, etc.) that could lead to the violation, or identify the hot spot in a clustered system and move workloads around to avoid the hot spot. Or limit bully workloads by setting a QoS limit to reduce the contention.

Syslog Message

QoS min-throughput feature has started throttling requests for node: "%s" with uuid: "%s".

Parameters

object_type (STRING): Type of resource object under notification. The object_type will always be NODE.
object_uuid (STRING): Universal unique identifier (UUID) of the resource object. The UUID is of the node.

qos.VioDet.noMemory

Severity

ERROR

Description

This message occurs when the Quality-of-Service (QoS) process cannot allocate memory required for the Violation Detection subsystem (likely there is not enough system memory available). As a result workloads will not meet their min-throughput and their service-level objectives (SLOs).

Corrective Action

(None).

Syslog Message

QoS dynamic memory has reached its limit. QoS min-throughput might operate in a limited capacity.

Parameters

object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

qos.VioDet.publishFail

Severity

ERROR

Description

This message occurs when the Quality-of-Service (QoS) process cannot communicate throttle limits due to an internal error. As a result workloads might not meet their min-throughput and their service-level objectives (SLOs).

Corrective Action

Contact NetApp technical support.

Syslog Message

QoS subsystem cannot publish throttle limits.

Parameters

object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

qos.violation events

qos.violation.report

Deprecated

Deprecated as of version 9.4.0 since the QoS violation detection functionality has been deprecated.

Severity

NOTICE

Description

This message occurs every hour to provide a snapshot of violation detection status for the Quality of Service (QoS) policy groups. The snapshot shows the states of those policy groups that either cannot meet their service-level objectives (SLOs), or are impacted by (deactivation) actions taken by QoS to remedy the situations. Possible violation states include LOW_OFFERED, which means the offered load for a policy group is too low, or INSUFFICIENT_RESOURCES, which means the system can not support the specified targets in the SLO. The deactivation states include ACTIVATED, which means this policy group is not impacted by deactivation, or DEACTIVATED, which means this policy group is deactivated to support other violated policy group.

Corrective Action

After observing a violation, one should collect ONTAP statistics counters and use 'qos statistics' CLI command to monitor the violated policy group. Increase the client load if a low offered violation is present and the policy group client does not generate sufficient load. For other violations, identify the critical resources (cpu, memory, network, disk, etc.) that could lead to the violation, or identify the hot spot in a clustered system. The solution to the former is to add more resources; while the latter is to move workloads around to avoid the hot spot.

Syslog Message

QoS violation state for policy group %s is (pgid= %u violation= %s deactivation= %s).

Parameters

name (STRING): The QoS policy group name.
id (INT): The QoS policy group identifier.
vdstate (STRING): The violation state for a QoS policy group.
dastate (STRING): The deactivation state for a QoS policy group.

qtree events

qtree.delete events

qtree.delete.failed

Severity

ERROR

Description

This message occurs when the delete operation on a qtree fails.

Corrective Action

Check and resolve the failure reason and attempt the qtree deletion again.

Syslog Message

Failed to delete qtree "%s" in volume "%s" on Vserver "%s". Error: "%s" (%d).

Parameters

qtree (STRING): Name of the qtree.
volume (STRING): Name of the volume on which the qtree resides.
vserver (STRING): Name of the Vserver on which the volume resides.
reason (STRING): Reason for the failure.
errorCode (INT): Error number of the failure.

qtree.delete.start

Severity

NOTICE

Description

This message occurs when a qtree is being deleted. A subsequent event will indicate the success or failure of the operation.

Corrective Action

(None).

Syslog Message

Deleting qtree "%s" in volume "%s" on Vserver "%s".

Parameters

qtree (STRING): Name of the qtree.
volume (STRING): Name of the volume on which the qtree resides.
vserver (STRING): Name of the Vserver on which the volume resides.

qtree.delete.success

Severity

NOTICE

Description

This message occurs when the delete operation on a qtree succeeds.

Corrective Action

(None).

Syslog Message

Successfully deleted qtree "%s" in volume "%s" on Vserver "%s".

Parameters

qtree (STRING): Name of the qtree.
volume (STRING): Name of the volume on which the qtree resides.
vserver (STRING): Name of the Vserver on which the volume resides.

query events

query.execution events

query.execution.console

Severity

NOTICE

Description

This message occurs when the dotsql command-line program processes an SQL query.

Corrective Action

(None).

Syslog Message

(None).

Parameters

query (STRING): Query that was executed.

query.execution.failed

Severity

NOTICE

Description

This message occurs when a SQL query of the system fails for any reason.

Corrective Action

This type of failure can occur legitimately during the course of normal system operation. In cases of unexpected failure, the requestor provides diagnostic advice.

Syslog Message

(None).

Parameters

query (STRING): Query that was executed.
error (STRING): Error message that occurred.

quota events

quota.inconsistent events

quota.inconsistent

Severity

ERROR

Description

This message occurs when the quota database is corrupted.

Corrective Action

Use the 'quota off' command followed by the 'quota on' command to clear the corruption and reenable quotas on the volume.

Syslog Message

Quota database on %s%s%s is corrupted. Disabling quotas until the corruption is fixed.

Parameters

vol_name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique dentifier for the volume in cases in which the volume name alone is insufficient.

quota.intr events

quota.intr.boot.fschk

Severity

INFORMATIONAL

Description

This message occurs when previous quota initialization was interrupted due to a system reboot or file system consistency checking.

Corrective Action

(None).

Syslog Message

WAFL: Reboot or file system consistency checking interrupted quota initialization on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.

quota.parse events

quota.parse.error

Severity

ERROR

Description

This message occurs when the system detects an error while scanning the quota rules. The parser would be skipping this quota definition.

Corrective Action

Fix the error in quota rules definition using the CLI commands "quota policy rule modify" or "quota policy rule delete".

Syslog Message

%s

Parameters

errmsg (STRING): Message describing the error in detail.

quota.push events

quota.push.rules.complete

Severity

NOTICE

Description

This message occurs when the system has completed pushing rules into the quota database.

Corrective Action

(None).

Syslog Message

Quota rules push completed on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.push.rules.start

Severity

NOTICE

Description

This message occurs when the system starts pushing rules into the quota database.

Corrective Action

(None).

Syslog Message

Quota rules push started on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.reinit events

quota.reinit.required

Severity

ERROR

Description

This message occurs when an unplanned MetroCluster(tm) switchover happens. If a quota operation was running on a volume located on a disaster site during the unplanned switchover, the quota database could be in an incomplete state and quotas need to be reinitialized on that volume.

Corrective Action

After the unplanned switchover is complete, use the "quota off" CLI command followed by the "quota on" CLI command to reinitialize quotas for the indicated volume.

Syslog Message

Quota reinitialization is required on %s%s%s due to an unplanned switchover.

Parameters

volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.

quota.resize events

quota.resize.start

Severity

NOTICE

Description

This message occurs when quota resize starts.

Corrective Action

None.

Syslog Message

%s

Parameters

noticestring (STRING): Quota resize started.

quota.resize.stop

Severity

NOTICE

Description

This message occurs when quota resize stops or finishes.

Corrective Action

None.

Syslog Message

%s

Parameters

noticestring (STRING): Quota resize stopped or completed. It also reports the duration for the quota resize.

quota.scan events

quota.scan.abort

Severity

ERROR

Description

This message occurs after the administrator uses the "volume quota on" command, when the quota scanner aborts without finishing due to an error condition. Any quotas configured on the volume will not be tracked or enforced.

Corrective Action

If the volume quota status is not displayed as "off", turn quotas off by executing the "volume quota off" command, and then retry the "volume quota on" command. If this condition persists, contact NetApp technical support.

Syslog Message

Quota scan aborted on %s %s%s%s%s.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.scan.cancel

Severity

> NOTICE

Description

> This message occurs after the administrator uses the "volume quota on" command, when the quota scanner is canceled by other activity in the system. An example of such activity would be the "volume quota off" command.

Corrective Action

> (None).

Syslog Message

> Quota scan canceled on %s %s%s%s%s.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.scan.complete

Severity

> NOTICE

Description

> This message occurs when the administrator uses the "volume quota on" command and the quota scanner has completed scanning.

Corrective Action

> (None).

Syslog Message

> Quota scan completed on %s %s%s%s%s.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.

volident (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.scan.start

Severity

NOTICE

Description

This message occurs when the administrator uses the "volume quota on" command and starts the quota scanner.

Corrective Action

(None).

Syslog Message

Quota scan started on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Additional volume identifier, used to uniquely identify the volume if the volume name alone cannot.

quota.softlimit events

quota.softlimit.exceeded

Severity

NOTICE

Description

This message occurs when a user exceeds the soft quota limit (file and/or block limit).

Corrective Action

(None).

Syslog Message

%s %s for %s on volume %s%s%s%s

Parameters

ltype (STRING): Type of soft limit (file or block).
verb (STRING): Error condition (exceeded).
whom (STRING): Entity for whom this event is generated.
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfname (STRING): vFiler(tm) name.

quota.softlimit.normal

Severity
NOTICE

Description
This message occurs when a user's soft quota limit (file and/or block limit) returns to normal.

Corrective Action
(None).

Syslog Message
%s %s for %s on volume %s%s%s%s

Parameters
ltype (STRING): Type of soft limit (file or block).
verb (STRING): Status "normal" to indicate that the previously violated condition is now fixed.
whom (STRING): Entity for whom this event is generated.
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfname (STRING): vFiler(tm) name.

quota.upgrade events

quota.upgrade

Severity
INFORMATIONAL

Description
This message occurs when a quota upgrade on the volume is started, ended or aborted.

Corrective Action
(None).

Syslog Message
Quota upgrade %s for volume %s%s%s.

Parameters
status (STRING): Indicates that the upgrade has started or is over for this vFiler.
volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which volume name alone is insufficient.

raid events

raid.aggr events

raid.aggr.autoGrow.abort

Severity

NOTICE

Description

This message occurs when the usable size of an aggregate does not expand after a corresponding increase in the size of the underlying storage.

Corrective Action

Check the sizes of all disks in the affected aggregate, and make sure that the backing volumes have increased to the same size. Run the "storage disk show -virtual-machine-disk-info" command to get the name of the backing volume for a disk, under the "VM Disk File" column in the command output.

Syslog Message

The capacity of aggregate %s couldn't be expanded. The parameters to increase size are raidgroup_count: %d, min_new_size: %llu, max_new_size: %llu. Reason for failure: %s.

Parameters

aggr_name (STRING): Name of the aggregate that did not expand in size.
rg_count (INT): Number of RAID groups that have disks that have increased in size.
max_new_size (LONGINT): Maximum possible new usable size across the RAID group
min_new_size (LONGINT): Minimum possible new usable size across the RAID group
reason (STRING): Short string describing why the aggregate capacity was not changed.

raid.aggr.autoGrow.notAllowed

Severity

NOTICE

Description

This message occurs when the aggregate cannot be allowed to auto grow due to some transient condition.

Corrective Action

(None).

Syslog Message

The aggregate "%s" cannot grow. Reason: "%s".

Parameters

aggr (STRING): Name of the aggregate.
reason (STRING): Reason for not allowing aggregate to grow.

raid.aggr.autoGrow.success

Severity

NOTICE

Description

This message occurs when the usable size of an aggregate is able to expand after a corresponding increase in the size of the underlying storage.

Corrective Action

(None).

Syslog Message

The capacity of aggregate %s has increased from %llu blocks to %llu blocks.

Parameters

aggr_name (STRING): Name of the aggregate that has increased in size.
old_size (LONGINT): Previous size, in blocks, of the aggregate that has increased in size.
new_size (LONGINT): New usable size, in blocks, of the aggregate.

raid.aggr.lock.conflict

Severity

INFORMATIONAL

Description

This message occurs when a configuration operation on an aggregate (for example, adding disks, relocating aggregate disks, etc.), fails to get exclusive lock access because of a conflict with an existing configuration operation that is already holding the exclusive lock on the aggregate.

Corrective Action

Retry the failed operation after the current operation is complete.

Syslog Message

Exclusive access on the aggregate %s by operation %s failed because of a conflict with current operation %s. Retry after a few minutes.

Parameters

aggregate (STRING): Name of the aggregate.
attempted_op_name (STRING): Name of the operation that tried to get exclusive access.
current_op_name (STRING): Name of the operation that is currently holding the exclusive access.

raid.aggregate events

raid.aggregate.relocate

Severity

INFORMATIONAL

Description

This message occurs when the source node prepares an aggregate for relocation to the specified destination node.

Corrective Action

(None).

Syslog Message

Aggregate %s%s: Prepared for 'relocation' operation.

Parameters

owner (STRING): String indicating the owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.aggrvote events

raid.aggrvote.pullNotOk

Severity

INFORMATIONAL

Description

This message occurs when the mirror vote pull from the replicated database (RDB) to the mailbox fails. SyncMirror® aggregates with only one plex will be kept offline. The mirror vote pull is retried automatically.

Corrective Action

(None).

Syslog Message

RAID: mirror vote pull from the RDB failed. SyncMirror aggregates with only one plex will be kept offline.

Parameters

(None).

raid.aggrvote.updateNotOk

Severity

ERROR

Description

This message occurs when the mirror vote update to a replicated database (RDB) fails.

Corrective Action

The update is retried automatically. If the condition persists, contact NetApp technical support.

Syslog Message

RAID: mirror vote update to the RDB failed with error %s for aggregate UUID %s (num of plexes %d; ids: %d, %d).

Parameters

reason (STRING): Reason for the failure.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
num_plexes (INT): Number of plexes recorded in the mirror vote.
plex0_id (INT): ID of plex 0 in the mirror vote.
plex1_id (INT): ID of plex 1 in the mirror vote.

raid.aggrvote.updateOk

Severity

NOTICE

Description

This message occurs when the mirror vote update to a replicated database (RDB) succeeds.

Corrective Action

(None).

Syslog Message

RAID: mirror vote update to the RDB succeeded for aggregate UUID %s (num of plexes %d; ids: %d, %d), action %s.

Parameters

aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
num_plexes (INT): Number of plexes recorded in the mirror vote.
plex0_id (INT): ID of plex 0 in the mirror vote.
plex1_id (INT): ID of plex 1 in the mirror vote.
action_type (STRING): Action performed on the RDB table entry. "CREATE" or "MODIFY".

raid.assim events

raid.assim.add.offline.disk

Severity

NOTICE

Description

This event is generated when adding an offline disk into a raidtree.

Corrective Action

(None).

Syslog Message

Adding offline %s to plex_id:%d

Parameters

disk_info (STRING): Formatted information of the offline disk.
plexId (INT): The identifier for the plex.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is

located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.build.errorDisk

Severity

NOTICE

Description

This message occurs when RAID cannot build a RAID tree for a specific plex from a specific disk. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Error building RAID tree %s, plex %d, from disk %s.

Parameters

tree (STRING): Volume type.
plexId (INT): Identifier for the plex.
disk (STRING): Name of the disk.

raid.assim.cfo.aggr.offline

Severity

INFORMATIONAL

Description

This event occurs when a CFO aggregate which is orginally homed to the disaster recovery (DR) partner or DR auxiliary partner is taken offline during assimilation after switchover in a MetroCluster(tm) configuration. Switched over CFO aggregates are kept offline.

Corrective Action

(None).

Syslog Message

Aggregate %s%s originally homed to %u is taken offline. Reason: %s.

Parameters

owner (STRING): Owner of affected aggregate.
aggregate (STRING): The name of the aggregate.
dr_home_owner_id (INT): NVRAM system ID of the aggregate's disaster recovery (DR) home owner.
reason (STRING): The reason for taking the aggregate offline.

raid.assim.cls.mismatchGens

Severity

NOTICE

Description

This message occurs when Data ONTAP® excludes a disk from assimilation into this RAID tree because of

a configuration error detected by the consistent label set (CLS) algorithm: the disk transaction generation contains an internal inconsistency. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Data ONTAP takes appropriate recovery actions but if the aggregate is still shown as 'failed' when the command 'sysconfig -r' or 'aggr status -r' is run, then contact NetApp technical support for information about how to resolve the issue.

Syslog Message

Orphaning disk %s, because of generation count mismatch (%d/%d).

Parameters

disk (STRING): Name of the disk.
l1gen (INT): Generation count of the disk's L1 transaction.
l2gen (INT): Generation count of the disk's L2 transaction.

raid.assim.cls.noStableCls

Severity

NOTICE

Description

This message occurs when the consistent label set (CLS) algorithm is restarted because Data ONTAP® could not determine a consistent CLS for all of the RAID aggregates. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Unable to find a stable CLS for all RAID trees. Resorting disks.

Parameters

(None).

raid.assim.cls.noStableCls2

Severity

NOTICE

Description

This message occurs when the consistent label set (CLS) algorithm is restarted because Data ONTAP® could not determine a consistent CLS for all of the RAID aggregates with Label 2. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Unable to find a stable CLS for all RAID trees with Label 2. Resorting disks.

Parameters

(None).

raid.assim.cls.retryCls

Severity

NOTICE

Description

This message occurs when the consistent label set (CLS) algorithm is restarted due to a disk that appears with an unreasonable timestamp (appears to be a future time). Data ONTAP® takes appropriate recovery actions, as described in additional logged events

Corrective Action

(None).

Syslog Message

Suspect unreasonable timestamp in future for disk in plex %s/%d. Restarting CLS algorithm.

Parameters

plex (STRING): Plex name.
pid (INT): Plex ID.

raid.assim.cls.tooManyPlexes

Severity

NOTICE

Description

This message occurs when the number of plexes detected exceeds the maximum limit allowed, during consistent label set (CLS) computation. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Raidtree %s has more than %d plexes (plex IDs %d, %d, %d)

Parameters

vol (STRING): Name of the aggregate.
maxPlexes (INT): Maximum number of plexes allowed per tree.
plex1 (INT): Plex #1.
plex2 (INT): Plex #2.
plex3 (INT): Plex #3.

raid.assim.cls.tooRecent

Severity

NOTICE

Description

This message occurs when Data ONTAP® excludes a disk from assimilation into this RAID tree because of a configuration error detected by the consistent label set (CLS) algorithm: the disk transaction identifier indicates that it is more recent than the base transaction ID of the CLS. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Data ONTAP takes appropriate recovery actions but if the aggregate is still shown as 'failed' when the command 'sysconfig -r' or 'aggr status -r' is run, then contact NetApp technical support for information about how to resolve the issue.

Syslog Message

Orphaning disk %s, because its generation (%d/%d) is more recent than %d/%d.

Parameters

disk (STRING): Name of the disk.
t1gen (INT): Generation count of the disk's transaction.
t1time (INT): Timestamp of the disk's transaction.
vgen (INT): Generation count of the aggregate.
vtime (INT): Timestamp of the aggregate transaction.

raid.assim.cxt.degradedDirty

Severity

INFORMATIONAL

Description

This message occurs when RAID detects that a context parity protected aggregate contains a degraded RAID group and has dirty parity.

Corrective Action

(None).

Syslog Message

%s "%s%s" is degraded and has dirty parity.

Parameters

vol_type (STRING): Volume type.
host (STRING): 'Local' or 'Partner' where the aggregate is located.
vol (STRING): Name of the aggregate.

raid.assim.disk.badlabelversion

Severity

ALERT

Description

This message occurs when RAID assimilation discovers that a disk has an invalid raid label version. Data ONTAP® marks the disk as broken.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.assim.disk.badlabelversion" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

%s has %s RAID label with version (%d), which is not within the currently supported range (%d - %d).

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM and carrier serial number.
gen (STRING): Non-empty string for the old format label.
version (INT): Label version number.
versionLow (INT): Lower range of the valid label version.
versionHigh (INT): Upper range of the valid label version.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.disk.broken

Severity

ERROR

Description

This message occurs when we discover that a broken disk has been discovered during assimilation.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Broken %s detected during assimilation.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM

carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.disk.brokenPreAssim

Severity

ERROR

Description

This message occurs when we discover that a broken disk has been discovered prior to assimilation.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Broken %s detected prior to assimilation.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.disk.md5error

Severity

NOTICE

Description

This event occurs when we detect that a disk label has an MD5 signature that is different from the MD5 signature of the disk that it's on. Usually this is due to a disk serial number change.

Corrective Action

(None).

Syslog Message

%s%s%s, diskobj_verify: MD5 signature of disk %s (S/N %s) does not match with its label signature. This has been corrected.

Parameters

container (STRING): The type of container (aggregate, disk pool).
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
disk (STRING): The name of the disk
serial (STRING): The serial number of the disk
oldmd5 (STRING): The old MD5 checksum of the disk
newmd5 (STRING): The new MD5 checksum of the disk

raid.assim.disk.nolabels

Severity

EMERGENCY

Description

This event occurs when we detect that a disk has no valid labels. Disks in NetApp systems should always have valid labels; therefore, a disk without labels implies that there is corruption somewhere in the data path to the disk. (This is the most common cause, often because of loose cables or a newly added shelf.) It is possible, although much less likely, that the disk itself is experiencing silent data corruption. The affected disk is taken out of service for the reason "bad label."

Corrective Action

If the disk was newly added and really should be treated as a spare, the "disk unfail" command will mark the disk as a spare. Otherwise, if the disk was previously working normally, check the connectivity to the disk. Are all the cables secured? Sometimes newly added shelves or loose cables can cause electrical noise on the bus that corrupts data transmission. If the connectivity to the disk is good and there is filesystem data on the disk, contact NetApp technical support for help.

Syslog Message

%s has no valid labels. It will be taken out of service to prevent possible data loss.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.disk.region.hole

Severity

ALERT

Description

This message occurs when RAID assimilation detects that a disk has a hole between the two disk regions. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.assim.disk.region.hole" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

Disk %s (S/N %s) has a hole in its allocated space between region %d (type %s,start %llu, size %llu) and region %d (type %s, start %llu, size %llu).

Parameters

disk (STRING): Name of the disk.
diskSerialno (STRING): Serial number of the disk.
regionId1 (INT): First disk region identifier.
region1 (STRING): First disk region name.
start1 (LONGINT): Start of the first disk region.
size1 (LONGINT): Size of the first disk region.
regionId2 (INT): Second disk region identifier.
region2 (STRING): Second disk region name.
start2 (LONGINT): Start of the second disk region.
size2 (LONGINT): Size of the second disk region.

raid.assim.disk.region.overlap

Severity

ERROR

Description

This message occurs when RAID assimilation detects that a disk has two regions overlapping. Data ONTAP®takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.assim.disk.region.overlap" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

On disk %s (S/N %s), region %d (type %s, start %llu, size %llu) overlaps with region %d (type %s, start %llu, size %llu).

Parameters

disk (STRING): Name of the disk.
diskSerialno (STRING): Serial number of the disk.
regionId1 (INT): First disk region identifier.
region1 (STRING): First disk region name.
start1 (LONGINT): Start of the first disk region.
size1 (LONGINT): Size of the first disk region.
regionId2 (INT): Second disk region identifier.
region2 (STRING): Second disk region name.
start2 (LONGINT): Start of the second disk region.
size2 (LONGINT): Size of the second disk region.

raid.assim.disk.rightsizeChange

Severity

INFORMATIONAL

Description

This event indicates that the rightsize stored in this disk's Table Of Contents(TOC) is different from the rightsize currently being reported by the disk.

Corrective Action

(Call support).

Syslog Message

(None).

Parameters

diskType (STRING): Indicates if this a spare or filesystem disk.
disk_info (STRING): Formatted information of the disk
toc_rightsize (LONGINT): The disk rightsize according to the disk TOC.
changeType (STRING): Type of change: growth or shrinkage.
storage_rightsize (LONGINT): The disk rightsize according to the storage layer.
systemAction (STRING): The action being taken by the system to deal with this event.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm)(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.disk.spare

Severity

NOTICE

Description

This event is generated when we spare an error disk.

Corrective Action

(None).

Syslog Message

Sparing %s, because %s

Parameters

disk_info (STRING): Formatted information of the disk
reason (STRING): (None).
shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.assim.fatal

Severity

EMERGENCY

Description

This message occurs when assimilation encounters a fatal error, such as running out of memory.

Corrective Action

Contact NetApp technical support.

Syslog Message

Assimilation failed: %s

Parameters

reason (STRING): Reason assimilation failed.

raid.assim.fatal.upgrade

Severity

EMERGENCY

Description

This message occurs when RAID assimilation encounters a fatal error during an unsuccessfull upgrade to a newer version of Data ONTAP®.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.assim.fatal" keyword on the Knowledgebase of the NetApp Support Site. You can also boot with the previous version of Data ONTAP.

Syslog Message

Assimilation failed: This system appears to be upgrading from a previous version of Data ONTAP. Errors were found while upgrading the aggregates. The upgrade will abort now.

Parameters

(None).

raid.assim.label.makeForeignVol

Severity

ERROR

Description

This message occurs when ownership cannot be claimed over a previously non-native aggregate.

Corrective Action

Use the 'storage aggregate online' command to bring the aggregate online.

Syslog Message

%s %s could not be turned into a %snative aggregate; it will appear to be foreign.

Parameters

vol_type (STRING): Volume type. Always aggregate.
vol (STRING): Name of the aggregate.
host (STRING): Empty string for local aggregates, or "partner" for partner aggregates.
vol_type2 (STRING): No longer used.

raid.assim.label.makeNativeVol

Severity

NOTICE

Description

This event is generated when we claim ownership over a previously non-native aggregate.

Corrective Action

(None).

Syslog Message

%s %s turned into a %snative %s.

Parameters

vol_type (STRING): Volume type.
vol (STRING): Name of the aggregate.
host (STRING): Empty string for local aggregates, or "partner " for partner aggregates.
vol_type2 (STRING): Volume type.

raid.assim.label.noNativeVols

Severity

NOTICE

Description

This event is generated when we complete assimilation and discover that none of the volumes or aggregates match the local system id. This can occur if the NVRAM card has been swapped. The system will attempt to select a set of volumes and aggregates to make native.

Corrective Action

(None).

Syslog Message

No native volumes or aggregates detected, assuming NVRAM card swap. %d NVRAM system id(s) (%u, %u, %u…) found among all volumes. NVRAM system id %u selected. NVRAM card swap detected by %s.

Parameters

nsets (INT): Number of different serial numbers found in non-native volumes.
nvram_sysid1 (INT): First NVRAM system id to select from.
nvram_sysid2 (INT): Second NVRAM system id to select from.
nvram_sysid3 (INT): Third NVRAM system id to select from.
selected_nvram_sysid (INT): Selected NVRAM system id of volumes before swap.
who (STRING): Module detected NVRAM card swap.

raid.assim.label.upgrade

Severity

INFORMATIONAL

Description

This event is generated when we upgrade RAID labels to the new 6.2-and-later format.

Corrective Action

(None).

Syslog Message

Upgrading RAID labels.

Parameters

(None).

raid.assim.label.upgrade.corruptSize

Severity

ALERT

Description

This message occurs when an old RAID label is being upgraded and the label appears to be corrupted due to the parity type and the sizes[0] entry (describing the size of the parity disk) conflicting. This deals with burt 79966.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal. Contact NetApp technical support.

Syslog Message

Disk %s has a corrupt old label: sizes[%d] is %u.

Parameters

disk (STRING): Disk with the corrupted label.
rgdn (INT): Disk number given by the RAID Group.
size (INT): Size of the disk.

raid.assim.label.upgrade.parityMismatch

Severity

ALERT

Description

This message occurs when an old RAID label is being upgraded and the label appears to be corrupted due to the parity type and the sizes[0] entry (describing the size of the parity disk) conflicting. This deals with burt 79966.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal. Contact NetApp technical support.

Syslog Message

Disk %s has a corrupt old label: parity type mismatch.

Parameters

disk (STRING): Disk with the corrupted label.

raid.assim.mark.error.disk.broken

Severity

NOTICE

Description

This message occurs when RAID moves an invalid disk into a broken disk pool. Invalid disks can be ones with bad labels or with an unsupported label version.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Marking disk %s, which failed assimilation in %s %s, as broken, because %s.

Parameters

disk (STRING): Name of the disk.
vol_type (STRING): Volume type.
tree (STRING): Name of the aggregate.
reason (STRING): Reason for marking the disk broken.

raid.assim.rg.dupChildId

Severity

ALERT

Description

This event occurs when we detect that a RAID group object has an inconsistent list of disk objects in its label configuration record.

Corrective Action

(Call support).

Syslog Message

%s %s%s, rgobj_verify: RAID object %d has duplicate child objects (%s and %s) with ID %d.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
rgId (INT): The RAID group identifier
diskName1 (STRING): One disk with this identifier
diskName2 (STRING): Another disk with this identifier
childId (INT): The child identifier

raid.assim.rg.offlineVerifyFailed

Severity

NOTICE

Description

This message occurs when an offline disk within a RAID group fails verification checks. For example, ownership information differs with the parent aggregate, or the parent tree map specifies this disk is unmapped. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s "%s%s", Offline child object (ID=%d) in RAID object %d failed verification

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
rgId (INT): RAID group identifier.
childId (INT): Child identifier.

raid.assim.tree.degradedDirty

Severity

EMERGENCY

Description

This message occurs when an aggregate contains a degraded RAID group and has dirty parity. Wafliron must be run before the aggregate can be brought online.

Corrective Action

Run wafliron for the aggregate by using the command 'aggr wafliron start'.

Syslog Message

%s "%s%s" is degraded and has dirty parity. You must run wafliron on this aggregate before it can be brought online.

Parameters

vol_type (STRING): Volume type.
host (STRING): 'Local' or 'Partner' where the aggregate is located.
vol (STRING): Name of the aggregate.
vol_type2 (STRING): Volume type.

raid.assim.tree.dupId

Severity

ALERT

Description

This message occurs when RAID assimilation detects that a duplicate volume identifier exists. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.assim.tree.dupId" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

%s %s%s and %s %s%s have the same RAID tree ID. RAID assimilation will be aborted.

Parameters

vol_type1 (STRING): Volume type.
owner1 (STRING): Owner of the first aggregate.
vol1 (STRING): Name of the first aggregate.
vol_type2 (STRING): Volume type.
owner2 (STRING): Owner of the second aggregate.
vol2 (STRING): Name of the second aggregate.

raid.assim.tree.dupName

Severity

NOTICE

Description

This message occurs when the system detects a duplicate name for a volume or an aggregate. In this case, the second volume or aggregate with that name is renamed.

Corrective Action

Use the 'vol rename' command or 'aggr rename' command to resolve the conflict permanently.

Syslog Message

Duplicate %s names found, an instance of %s%s is being renamed to %s%s.

Parameters

vol_type (STRING): Whether the duplicate name is for a volume or an aggregate.
owner1 (STRING): String indicating the owner of the volume or aggregate.
vol (STRING): Original name of the volume or aggregate.
owner2 (STRING): String indicating the owner of the volume or aggregate.
newName (STRING): New name of the volume or aggregate.

raid.assim.tree.foreign

Severity

ERROR

Description

This message occurs when a RAID tree object contains an ownership identifier that is different from the local system. In this case, the aggregate is declared "foreign" and is marked offline.

Corrective Action

Use the 'storage aggregate online' command to bring the aggregate online.

Syslog Message

raidtree_verify: %s %s is a foreign aggregate and is being taken offline. Use the 'storage aggregate online' command to bring it online.

Parameters

vol_type (STRING): Volume type. Always aggregate.
vol (STRING): Name of the aggregate.
vol_type2 (STRING): No longer used.
vol_type3 (STRING): No longer used.

raid.assim.tree.multipleRootVols

Severity

EMERGENCY

Description

This message occurs when the system detects an assimilation error indicating that two aggregates claim to be the root volume.

Corrective Action

Go into Maintenance mode and use the 'aggr options' command with the 'root' option to pick a root aggregate.

Syslog Message

Volume %s and volume %s both claim to be the %sroot volume.

Parameters

vol1 (STRING): Name of the first aggregate.
vol2 (STRING): Name of the second aggregate.
host (STRING): Empty string for local aggregate, or "partner " for partner aggregate.

raid.assim.tree.noRootVol

Severity

ERROR

Description

This message occurs when the system detects an assimilation error indicating that no root aggregate is found.

Corrective Action

Go into Maintenance mode and use the 'aggr options' command with the 'root' option to pick an aggregate to be the root volume.

Syslog Message

No usable %sroot volume was found!

Parameters

host (STRING): Empty string for local aggregates, or "partner " for partner aggregates.

raid.assim.tree.tooManyChild

Severity

ALERT

Description

This event occurs when we detect that a RAID tree object has more than one root volume objects in its label configuration record.

Corrective Action

(Call support).

Syslog Message

%s %s%s,raidtree_verify: Raidtree has multiple root objects.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.assim.upgrade.aggr.fail

Severity

EMERGENCY

Description

This message occurs when assimilation is attempting to upgrade the RAID labels for all aggregates (usually because of a kernel upgrade) and a aggregate can not be successfully upgraded. The RAID label upgrade is aborted. Boot with the previous release to fix the problem with the aggregate (which should be noted in the boot-time messages).

Corrective Action

Boot with the previous version of Data ONTAP to fix the problem with the aggregate (which should be noted in the boot-time messages).

Syslog Message

RAID label upgrade of %s %s%s failed.

Parameters

voltype (STRING): Type of RAID volume (volume or aggregate)
owner (STRING): Whether this is a partner or local volume
volume (STRING): Name of the volume that had a problem.

raid.autopart events

raid.autoPart.disabled

Severity

ALERT

Description

This message occurs when auto-partitioning for root aggregate creation is disabled on a system. When auto-partitioning is disabled, the root aggregate is created on whole disks. Systems with a root aggregate on partitioned disks can devote more space to non-root aggregates than systems with a root aggregate on whole disks. If this message occurs after root aggregate creation, then further partitioning of the disks is disabled.

Corrective Action

If the system is already initialized with root aggregate on partitioned disks, ONTAP will try to re-enable auto-partitioning after the system boots up and the root aggregate is online. The event raid.autoPart.enabled will be logged when auto-partitioning is re-enabled. To create a root aggregate on partitioned disks: 1. Halt the controller. 2. Replace any failed internal disks (see the "reason" field in the EMS message). 3. Reboot the controller. 4. Re-initialize the system. If this message is seen after the system initialization and the root aggregate is already created on partitioned disks, then the system will continue to function, as follows: 1. Expansion of existing aggregates created from partitioned disks may not work. 2. If a disk fails in a RAID group created out of partitioned disks, then a spare will fail to be partitioned and disk reconstruction will not start. 3. If a disk is marked for predictive failure in a RAID group created out of partition disks, then a spare will fail to be partitioned and the sick disk copy will not start. 4. If disks are available, then manually partition the disks and keep them as spares. 5. If you were previously directed to disable ADP by NetApp technical support, reach out to NetApp technical support to re-enable ADP.

Syslog Message

Disk auto-partitioning is disabled on this system: %s.

Parameters

reason (STRING): Reason that auto-partitioning was disabled.

raid.autoPart.done

Severity

NOTICE

Description

This message indicates that auto-partitioning has completed.

Corrective Action

(None).

Syslog Message

Successfully auto-partitioned %d of %d disks.

Parameters

n_partitioned (INT): Number of disks successfully auto-partitioned.
n_total (INT): Number of disks available for auto-partitioning.

raid.autoPart.enabled

Severity

NOTICE

Description

This message occurs when auto-partitioning for root volume creation is enabled on the system.

Corrective Action

None.

Syslog Message

Auto-partitioning is enabled on the system %s for partition method %s with %llu root size blocks.

Parameters

node (STRING): Node on which auto-partitioning is enabled.
partition_method (STRING): Partition method which is enabled.
size_blocks (LONGINT): Thin partition size in blocks for root.

raid.autoPart.paramsModified

Severity

NOTICE

Description

This message occurs when the "root-configuration" environment variable, which controls auto-partitioning for the initial root volume, contains one or more invalid parameters. When invalid parameters are discovered, the system reverts to using default parameters instead of the invalid parameters.

Corrective Action

Use the suggested "root-configuration" setting instead of the existing "root-configuration" setting.

Syslog Message

Invalid "root-configuration" settings: "%s". The system will auto-partition as if "root-configuration" had been set to: "%s".

Parameters

original_setting (STRING): Original environment variable.
modified_setting (STRING): Modified environment variable.

raid.autoPart.start

Severity

NOTICE

Description

This message indicates that auto-partitioning has started.

Corrective Action

(None).

Syslog Message

System has started auto-partitioning %d disks.

Parameters

n_total (INT): Number of disks available for auto-partitioning.

raid.capacity events

raid.capacity.license.alloc

Severity

NOTICE

Description

This message occurs when the system creates a new aggregate, or registers a new capacity for an existing aggregate.

Corrective Action

(None).

Syslog Message

Registered licensed capacity (%llu%s) for %s aggregate %s UUID %s - operation: %s, simulated: %d.

Parameters

capacity (LONGINT): Capacity registered for the aggregate against the license manager.
capacity_unit (STRING): Capacity unit (MB, GB, TB) for registered capacity.
mirrored (STRING): "mirrored" if the aggregate is mirrored; "unmirrored" otherwise.
aggregate_name (STRING): Name of the aggregate.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
operation (STRING): Aggregate operation triggering the license capacity update.
simulated (INT): 1 if the operation is simulated; 0 if the operation is not simulated.
root (INT): 1 if the aggregate is a root aggregate; 0 if it is a data aggregate.
status (INT): Synchronous status returned by the license capacity alloc call.
callback (INT): Indicates whether callback requested
sequence (INT): Sequence number to prevent suppression of duplicate messages.

raid.capacity.license.free

Severity

NOTICE

Description

This message occurs when the system destroys an aggregate, and thus frees its registered license capacity.

Corrective Action

(None).

Syslog Message

Freed licensed capacity of aggregate %s UUID %s operation: %s.

Parameters

aggregate_name (STRING): Name of the aggregate.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
operation (STRING): Aggregate operation triggering the license capacity free.
status (INT): Synchronous status returned by the license capacity free call.
sequence (INT): Sequence number to prevent suppression of duplicate messages.

raid.capacity.license.status

Severity

NOTICE

Description

This message occurs when the system attempts to update the licensed capacity of the system due to an aggregate operation.

Corrective Action

(None).

Syslog Message

Status of licensing request %s, aggregate %s, licensed capacity %llu%s, capacity remaining %llu%s, additional capacity required %llu%s.

Parameters

status_string (STRING): Status of the licensing request.
aggregate_name (STRING): Name of the aggregate.
licensed_size (LONGINT): Licensed capacity of the aggregate.
licensed_size_unit (STRING): Capacity unit (MB, GB, TB) for licensed capacity.
capacity_left (LONGINT): Capacity remaining in the license.
capacity_left_unit (STRING): Capacity unit (MB, GB, TB) for capacity remaining.
capacity_required (LONGINT): Additional licensed capacity required for this operation.
capacity_required_unit (STRING): Capacity unit (MB, GB, TB) for additional capacity required.
status_code (INT): Specific status code returned by the licensing request.
sequence (INT): Sequence number to prevent suppression of duplicate messages.

raid.carrier events

raid.carrier.diskEvacuated

Severity

NOTICE

Description

This message occurs when the evacuation operation is complete on a disk in a multidisk carrier that contains at least one failed disk. When a disk in a multidisk carrier fails, Data ONTAP® initiates evacuation of the other disks in the carrier so that you can replace the carrier after the evacuation is done. The disk's amber Attention LED is lit continuously after the carrier evacuation is complete.

Corrective Action

(None).

Syslog Message

Disk evacuation operation is complete on %s.

Parameters

disk_info (STRING): Formatted information of the disk being evacuated.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of the disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.carrier.doNotRemove

Severity

NOTICE

Description

This message occurs when a single disk fails while it is in a carrier that contains more than one disk. This disk carrier should not be removed because another disk might be in use. If another disk is in use, Data ONTAP® performs a disk copy operation on the other disk so that the carrier can be replaced after the disk copy is completed.

Corrective Action

Do not remove the disk carrier with the failed disk until the disk copy operation is completed. You can remove the carrier after the 'raid.carrier.remove' event is issued.

Syslog Message

%s in a multi-disk carrier failed. DO NOT REMOVE the disk carrier with the failed disk until the 'raid.carrier.remove' event is issued.

Parameters

disk_info (STRING): Formatted information of the disk object.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of the disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.carrier.remove

Severity

ALERT

Description

This message occurs when the last disk in a carrier that contains more than one disk has failed.

Corrective Action

Replace the carrier containing the failed disks.

Syslog Message

%s failed after all other disks have failed in the carrier. Replace the carrier.

Parameters

disk_info (STRING): Information about the last failed disk, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): String representing the model type of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is "Local".

raid.cksum events

raid.cksum.bad.file.block

Severity

ERROR

Description

This event is issued when WAFL accesses a block that was zeroed because it could not be recovered correctly.

Corrective Action

Please restore the corrupted file from snapshot or from the backup media.

Syslog Message

Reading bad block on %s %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the block was being accessed for a flexible volume or an aggregate.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): The name of the volume or aggregate
disk_info (STRING): Formatted information of the disk
blockNum (LONGINT): The block number
ino_type (STRING): The inode type
fileid (INT): The file identifier
snapid (INT): The snapshot identifier
bno (LONGINT): The block number in the file
level (INT): The level
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.buf.read.error.embedded

Severity

NOTICE

Description

This message occurs when the system detects an embedded checksum error. This can occur when a zeroing disk is added to the RAID group for reconstruction, and the zeroing is never completed.

Corrective Action

(None).

Syslog Message

Embedded checksum error on %s %s%s, %s, phys checksum block %llu

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.

vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Disk block number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.bypass

Severity

NOTICE

Description

This message occurs when a read error has occurred while media error bypass is enabled.

Corrective Action

(None).

Syslog Message

raid_cksum_compare: media error bypass enabled; Ignoring read error - %s %s%s, %s disk block %llu

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Block number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.bypass.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch while media error bypass is enabled. The expected virtual block number (VBN)/disk block number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. The error is ignored.

Corrective Action

(None).

Syslog Message

Block number mismatch: %s %s%s, %s stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu; media error bypass enabled; ignoring read error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information about the disk.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.bypass.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry while media error bypass is enabled. The checksum computed over the checksum entry does not match the embedded checksum, indicating that the checksum entry is corrupted. The error is ignored.

Corrective Action

(None).

Syslog Message

Invalid checksum entry: %s %s%s, %s disk block %llu; Media error bypass enabled; Ignoring read error.

Parameters

vol_type (STRING): Volume type.

owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.bypass.unknown

Severity

NOTICE

Description

This message occurs when a read error has occurred and has been ignored because media error bypass is enabled.

Corrective Action

(None).

Syslog Message

raid_cksum_compare: media error bypass enabled; Ignoring read error - %s %s%s, on disk block %llu

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
blockNum (LONGINT): Block number.

raid.cksum.bypass.unkwn.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch while media error bypass is enabled. The expected virtual block number (VBN)/disk block number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. The error is ignored. Details on which disk the error was encountered on are not Available because the disk transitioned to an unavailable state between the detection of the error and the logging of this message.

Corrective Action

(None).

Syslog Message

Block number mismatch: %s %s%s, stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu; Media error bypass enabled; Ignoring read error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.

raid.cksum.bypass.unkwn.embd

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry while media error bypass is enabled. The embedded checksum computed over the checksum entry does not match the stored embedded checksum in the checksum entry, indicating the corruption of the checksum entry. The error is ignored. Details on which disk the error was encountered on are not Available, because the disk transitioned to an unavailable state between the detection of the error and the logging of this message.

Corrective Action

(None).

Syslog Message

Invalid checksum entry: %s %s%s, on block %llu; Media error bypass enabled; Ignoring read error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
blockNum (LONGINT): Physical disk block number containing the error.

raid.cksum.bypass.unkwn.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry while media error bypass is enabled. The checksum entry is zeroed, but the corresponding block is not zeroed. The error is ignored. Details on which disk the error was encountered on are not Available because the disk transitioned to an unavailable state between the detection of the error and the logging of this message.

Corrective Action

(None).

Empty checksum entry for non-zeroed block: %s %s%s, on disk block %llu; Media error bypass enabled; Ignoring read error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
blockNum (LONGINT): Physical disk block number containing the error.

raid.cksum.bypass.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry while media error bypass is enabled. The checksum entry is zeroed, but the corresponding block is not zeroed. The error is ignored.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block: %s %s%s, %s disk block %llu; Media error bypass enabled; Ignoring read error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.disabled

Severity

NOTICE

Description

This event is issued when we disable checksums on an aggregate.

Corrective Action

(None).

Syslog Message

Disabled checksums on %s %s%s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.embedded.error

Severity

INFORMATIONAL

Description

This message occurs when the stored checksum of a checksum block does not match the computed checksum of the checksum block. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Checksum Entry of volume %s, disk %s, disk block %llu is bad: expected checksum %x, actual checksum %x

Parameters

vol (STRING): Name of the aggregate.
disk (STRING): Name of the disk.
blockNum (LONGINT): Disk block number.
expected_cksum (INT): Expected checksum of the checksum entry.
actual_cksum (INT): Actual embedded checksum in the checksum entry.

raid.cksum.enabled

Severity

NOTICE

Description

This event is issued when we enable checksums on an aggregate.

Corrective Action

(None).

Syslog Message

Enabled checksums on %s %s%s.

Parameters

vol_type (STRING): Volume type.

owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.err.recFail

Severity

NOTICE

Description

This message occurs when a disk is recommended for failure because we encountered more than allowed number of checksum errors.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Disk recommended for failure for exceeding threshold of %d checksum errors on %s%s.

Parameters

threshold (INT): The threshold for checksum errors
owner (STRING): String indicating the owner of the affected volume.
disk_info (STRING): The name of the disk.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.fsm.phase1

Severity

INFORMATIONAL

Description

This event is generated when phase 1 of a checksum upgrade is complete.

Corrective Action

(None).

Syslog Message

Completed RAID checksum upgrade phase 1 (of 2) on %s %s%s; phase 2 will occur during the next disk scrub.

Parameters

> **vol_type** (STRING): Volume type.
> **host** (STRING): Owner of the aggregate.
> **vol** (STRING): Name of the aggregate.

raid.cksum.fsm.phase1.abort

Severity

> INFORMATIONAL

Description

> This event is generated when phase 1 of a checksum upgrade is aborted.

Corrective Action

> (None).

Syslog Message

> RAID checksum upgrade phase 1 (of 2) on %s %s%s %s aborted.

Parameters

> **vol_type** (STRING): Volume type.
> **host** (STRING): Owner of the aggregate.
> **vol** (STRING): Name of the aggregate.
> **disk_info** (STRING): Formatted information of disk object that has completed its zeroing operation
> **shelf** (STRING): Shelf identifier where the disk is located
> **bay** (STRING): Disk bay within the shelf where disk is located
> **vendor** (STRING): Name of the vendor of the disk
> **model** (STRING): Model string of the disk drive
> **firmware_revision** (STRING): Firmware revision number of the disk
> **serialno** (STRING): Serial number of the disk
> **disk_type** (INT): Type of disk drive
> **disk_rpm** (STRING): Rotational speed of disk in RPM
> **carrier** (STRING): Unique ID of the carrier in which the disk is installed.
> **site** (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.fsm.reinit

Severity

> INFORMATIONAL

Description

> This event is generated when reinitialization of checksums is complete.

Corrective Action

> (None).

Syslog Message

> Completed RAID checksum reinitialization on %s %s%s.

Parameters

    vol_type (STRING): Volume type.
    host (STRING): Owner of the aggregate.
    vol (STRING): Name of the aggregate.

raid.cksum.fsm.reinit.abort

Severity

    INFORMATIONAL

Description

    This event is generated when checksum reinitialization is aborted.

Corrective Action

    (None).

Syslog Message

    RAID checksum reinitialization on %s %s%s %s aborted.

Parameters

    vol_type (STRING): Volume type.
    host (STRING): Owner of the aggregate.
    vol (STRING): Name of the aggregate.
    disk_info (STRING): Formatted information of disk object that has completed its zeroing operation
    shelf (STRING): Shelf identifier where the disk is located
    bay (STRING): Disk bay within the shelf where disk is located
    vendor (STRING): Name of the vendor of the disk
    model (STRING): Model string of the disk drive
    firmware_revision (STRING): Firmware revision number of the disk
    serialno (STRING): Serial number of the disk
    disk_type (INT): Type of disk drive
    disk_rpm (STRING): Rotational speed of disk in RPM
    carrier (STRING): Unique ID of the carrier in which the disk is installed.
    site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.fsm.revert

Severity

    INFORMATIONAL

Description

    This event is generated when a checksum revert is complete.

Corrective Action

    (None).

Syslog Message

    Checksum revert of %s %s%s completed; vol copy, aggr copy and snapmirror now allowed.

Parameters

vol_type (STRING): Volume type.
host (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.ignore.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch. The expected virtual block number (VBN)/disk block number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. This error is ignored if one of the following conditions is true: - It was encountered during WAFL® check. - It was encountered during wafliron and in ignore unrecoverable checksum error mode. - The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. - It was encountered in ignore checksum error mode. - It was encountered in boot bypass media error mode.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s %s %s, %s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu. Ignoring unrecoverable error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): VBN stored in the checksum entry.
expected_vbn (LONGINT): Expected VBN.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.ignore.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry. The embedded checksum computed over the checksum entry does not match, indicating the corruption of the checksum entry. This error is ignored if one of the following conditions is true: - It was encountered during WAFL® check. - It was encountered during wafliron and in ignore unrecoverable checksum error mode. - The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. - It was encountered in ignore checksum error mode. - It was encountered in boot bypass media error mode.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s %s %s, %s, disk block %llu. Ignoring unrecoverable error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number of the disk containing the error.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.ignore.error

Severity

NOTICE

Description

This message occurs when the system ignores a checksum error. This error is ignored if one of the following conditions is true: * It was encountered during WAFL® check. * It was encountered during wafliron and in ignore unrecoverable checksum error mode. * The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. * It was encountered in ignore checksum error mode. * It was encountered in boot bypass media error mode.

Corrective Action

(None).

Syslog Message

%s on %s %s%s, %s, disk block %llu. Ignoring unrecoverable error.

Parameters

error (STRING): Name of the error.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Block number.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.ignore.file.bno

Severity

ALERT

Description

This message occurs when the system detects a block number mismatch in a block of a file. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry indicating that the block is read from the wrong location. This error is ignored if one of the following conditions is true: - It was encountered during WAFL® check. - It was encountered during wafliron and in ignore unrecoverable checksum error mode. - The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. - It was encountered in ignore checksum error mode. - It was encountered in boot bypass media error mode.

Corrective Action

Contact technical support for information about how to resolve the unrecoverable checksum error in the referenced file.

Syslog Message

Block number mismatch on %s %s %s, %s, stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu, %s inode number %d, snapid %d, file block %llu, level %d. Ignoring unrecoverable error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information of the disk drive.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
ino_type (STRING): The inode type

fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Level.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.ignore.file.embed

Severity

ERROR

Description

This message occurs when the system detects an invalid checksum entry in a block of a file. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. This error is ignored if one of the following conditions is true: - It was encountered during WAFL® check. - It was encountered during wafliron and in ignore unrecoverable checksum error mode. - The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. - It was encountered in ignore checksum error mode. - It was encountered in boot bypass media error mode.

Corrective Action

Contact technical support for information about how to resolve the unrecoverable checksum error in the referenced file.

Syslog Message

Invalid checksum entry on %s %s %s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d. Ignoring unrecoverable error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Formatted information of the disk drive.
blockNum (LONGINT): Physical disk block number containing the error.
ino_type (STRING): The inode type
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Level.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.ignore.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry. The checksum entry is zeroed, but the corresponding block is not zeroed. This error is ignored if one of the following conditions is true: - It was encountered during WAFL® check. - It was encountered during wafliron and in ignore unrecoverable checksum error mode. - The block cannot be recovered from parity and the volume is ignoring unrecoverable errors. - It was encountered in ignore checksum error mode. - It was encountered in boot bypass media error mode.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s %s %s, %s, disk block %llu. Ignoring unrecoverable error.

Parameters

vol_type (STRING): Volume type.

owner (STRING): Owner of the affected aggregate.

vol (STRING): Name of the aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

blockNum (LONGINT): Physical disk block number of the disk containing the error.

shelf (STRING): Identifier of the disk shelf where the disk drive is located.

bay (STRING): Disk bay within the disk shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): String representing the name of the model of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.nvram.error

Severity

NOTICE

Description

This message occurs when we cannot write out the checksum for an aggregate because of uninitialized NVRAM. System panics because of this error and will attempt to perform recovery in the next boot.

Corrective Action

(None).

Syslog Message

Cannot write checksum for %s %s%s, %s, disk block %llu: NVRAM is not initialized.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Block number.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.nvram.uninit

Severity

NOTICE

Description

This message occurs when an aggregate checksum cannot be repaired because of uninitialized NVRAM.

Corrective Action

(None).

Syslog Message

Cannot repair checksum for %s %s%s, %s, disk block %llu: NVRAM is not initialized.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Block number.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where disk drive is located.

vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.replay.bad.entry

Severity

ERROR

Description

This event is issued at the end of checksum replay when bad checksum entries are detected in NVRAM during that replay (indicating corrupted NVRAM). Reparity will start automatically and update checksum blocks involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Skipped %d bad checksum entries in NVRAM.

Parameters

nentries (INT): The number of bad entries

raid.cksum.replay.disk.missing

Severity

INFORMATIONAL

Description

This event is issued when we encounter an NVRAM checksum entry for a missing disk during checksum replay. The disk will be reconstructed if an appropriate spare is available.

Corrective Action

(None).

Syslog Message

Skipping checksum block %llu because disk with index %d is missing in %s %s%s, plex %s, RAID group %d.

Parameters

cbn (LONGINT): Checksum block number
diskid (INT): Index of the disk in the RAID group.
vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
plex (STRING): The name of the plex.

rgid (INT): The identifier of the RAID group.

raid.cksum.replay.mismatch

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM checksum entry which does not match the partner NVRAM shadow checksum entry.

Corrective Action

(None).

Syslog Message

Skipping checksum block %ld for disk %s because the checksum 0x%x and shadow checksum 0x%x do not match.

Parameters

block_number (LONGINT): Checksum block number.
diskname (STRING): Name of the disk.
checksum (INT): Checksum value.
shadow_checksum (INT): Shadow checksum value.

raid.cksum.replay.nvgen.mismatch

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM generation mismatch for an aggregate during checksum replay. Reparity will start automatically and update checksum blocks involved in recent writes.

Corrective Action

(None).

Syslog Message

NVRAM generation mismatch for %s %s%s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.replay.plex.missing

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM checksum entry for a missing plex during checksum

replay. Reparity will start automatically when the plex comes online. At that time, reparity will update checksum blocks involved in recent writes.

Corrective Action

(None).

Syslog Message

Cannot find plex with identifier %d in %s %s%s.

Parameters

plexid (INT): The identifier of the plex.
vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.replay.plex.unavailable

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM checksum entry for an offline or failed plex during checksum replay. Reparity will start automatically when the plex comes online. At that time, reparity will update checksum blocks involved in recent writes.

Corrective Action

(None).

Syslog Message

Plex %s in %s %s%s is offline or failed.

Parameters

plex (STRING): The name of the plex.
vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.replay.rg.invalid

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM checksum entry for a missing RAID group during checksum replay.

Corrective Action

(None).

Syslog Message

Invalid RAID group identifier %d in %s %s%s, plex %s.

Parameters

>**rgid** (INT): The identifier of the RAID group.
>**vol_type** (STRING): Volume type.
>**owner** (STRING): Owner of the aggregate.
>**vol** (STRING): Name of the aggregate.
>**plex** (STRING): The name of the plex.

raid.cksum.replay.summary

Severity

>INFORMATIONAL

Description

>This event is generated when checksum replay is complete.

Corrective Action

>(None).

Syslog Message

>Replayed %u checksum blocks.

Parameters

>**nblocks** (INT): The number of blocks

raid.cksum.replay.vol.clean

Severity

>NOTICE

Description

>This event is issued when we encounter an NVRAM checksum entry for a cleanly shutdown aggregate during checksum replay.

Corrective Action

>(None).

Syslog Message

>%s %s%s was cleanly shut down.

Parameters

>**vol_type** (STRING): Volume type.
>**owner** (STRING): Owner of the aggregate.
>**vol** (STRING): Name of the aggregate.

raid.cksum.replay.vol.missing

Severity

>NOTICE

Description

This event is issued when we encounter an NVRAM checksum entry for a missing volume or aggregate during checksum replay. Reparity will start automatically when the aggregate appears again. At that time, reparity will update checksum blocks involved in recent writes.

Corrective Action

(None).

Syslog Message

Cannot find aggregate with identifier %s.

Parameters

volId (STRING): The identifier of the volume or aggregate.

raid.cksum.replay.vol.offline

Severity

NOTICE

Description

This event is issued when we encounter an NVRAM checksum for an offline aggregate during checksum replay. Reparity will start automatically when the aggregate comes online. At that time, reparity will update checksum blocks involved in recent writes.

Corrective Action

(None).

Syslog Message

%s %s%s is not online.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.unverify.file.block

Severity

ERROR

Description

This event is issued when WAFL accesses a block that could not be verified because of medium error on the checkusm block.

Corrective Action

Please restore the corrupted file from snapshot or from the backup media.

Syslog Message

Reading unverified block on %s %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the block was being accessed for a flexible volume or an aggregate.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): The name of the volume or aggregate
disk_info (STRING): Formatted information of the disk
blockNum (LONGINT): The block number
ino_type (STRING): The inode type
fileid (INT): The file identifier
snapid (INT): The snapshot identifier
bno (LONGINT): The block number in the file
level (INT): The level
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.validate.zoned

Severity

NOTICE

Description

This event is issued when the aggregate cannot support Zone checksum.

Corrective Action

(None).

Syslog Message

Checksums cannot be enabled on %s %s%s due to its disk sizes.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.cksum.verify.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch in an aggregate when it is being accessed by RAID, and not in response to a WAFL® request; therefore, there is no usable WAFL® context. The expected virtual block Number (VBN)/ disk block number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. Additional

messages are logged as the system attempts to perform recovery.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s %s%s, %s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu. System will attempt to perform recovery.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Identifier of the disk shelf where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry in an aggregate when it is being accessed by RAID, and not in response to a WAFL® request; therefore, there is no usable WAFL context. The embedded checksum computed over the checksum entry does not match, indicating the corruption of the checksum entry. Additional messages are logged as the system attempts to perform recovery.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s %s%s, %s, disk block %llu. System will attempt to perform recovery.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number of the disk containing the error.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): String representing the name of the model of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.error

Severity

NOTICE

Description

This message occurs when the system detects a checksum error in an aggregate when it is being accessed by RAID, and not in response to a WAFL® request; therefore, there is no usable WAFL® context. Additional messages are logged as the system attempts to perform recovery.

Corrective Action

(None).

Syslog Message

%s on %s %s%s, %s, disk block %llu, cpcount %d, buftreeid %llu. System will attempt to perform recovery.

Parameters

error (STRING): Name of the error.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Block number.
stored_cpcount (INT): Stored CP count in the checksum entry.
stored_buftreeid (LONGINT): Stored buftree identifier in the checksum entry.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.error.file

Severity

NOTICE

Description

This message occurs when the system discovers a checksum error in a block of a file. The computed checksum over the stored data does not match the stored checksum, indicating corruption.Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

%s on %s %s%s, %s, disk block %llu, cpcount %d, buftreeid %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

error (STRING): Name of the error.
vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information of the disk drive.
blockNum (LONGINT): Block number.
stored_cpcount (INT): Stored CP count in the checksum entry.
stored_buftreeid (LONGINT): Stored buftree identifier in the checksum entry.
ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Level.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of the disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.file.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch in a block of a file. The expected virtual block number (VBN)/disk block number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s %s%s, %s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information of the disk drive.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Level.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of the disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.file.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid file block checksum. The embedded checksum does not match the computed checksum, indicating corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions, and other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information about the disk drive.
blockNum (LONGINT): Physical disk block number that contains the error.
ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Level.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of the disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster™ configuration, indicates the site {local|remote} where the disk is located. For non-MetroCluster configurations, the site is 'local'.
physDiskBlockNum (LONGINT): Physical disk block number of the partitioned disk.

raid.cksum.verify.file.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry in a block of a file. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information of the disk drive.
blockNum (LONGINT): Physical disk block number containing the error.
ino_type (STRING): Inode type.
fileid (INT): File identifier.

snapid (INT): Snapshot identifier.

bno (LONGINT): Block number in the file.

level (INT): Level.

shelf (STRING): Disk shelf identifier where the disk drive is located.

bay (STRING): Disk bay within the disk shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): Model string of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of the disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.verify.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry for a non-zeroed block in an aggregate when it is being accessed by RAID, and not in response to a WAFL® request; therefore there is no usable WAFL® context. The checksum entry is zeroed, but the corresponding block is not zeroed. Additional messages are logged as the system attempts to perform recovery.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s %s%s, %s, disk block %llu. System will attempt to perform recovery.

Parameters

vol_type (STRING): Volume type.

owner (STRING): Owner of the affected aggregate.

vol (STRING): Name of the aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

blockNum (LONGINT): Physical disk block number of the disk containing the error.

shelf (STRING): Identifier of the disk shelf where the disk drive is located.

bay (STRING): Disk bay within the disk shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): String representing the name of the model of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.wc.blkErr

Severity

NOTICE

Description

This message occurs when the system detects a checksum error due to a WAFL® context mismatch. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

Please restore the corrupted file from snapshot or from the backup media.

Syslog Message

Checksum error due to WAFL context mismatch on %s %s%s, %s, disk block %llu, buftree ID %d, %s inode number %d, snapshot ID %d, file block %llu, level %d: checksum context has buftree ID %d, file block %llu, %s.

Parameters

vol_type (STRING): Whether the file is contained in an aggregate or within a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Block number.
buftreeid (LONGINT): Buftree identifier.
ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
bno (LONGINT): Block number in the file.
level (INT): Indirection level in the WAFL buffer.
stored_buftreeid (LONGINT): Stored buftree identifier in the checksum entry.
stored_fbn (LONGINT): Stored file block number in the checksum entry.
remaining_stored_context (STRING): String containing CP count, Physical Volume Block Number (PVBN), encrypted flag, encyption key index stored in the checksum entry.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.cksum.wc.sblkErr

Severity

ALERT

Description

This message occurs when the system encounters a super block with bad WAFL® context information in its checksum entry.

Corrective Action

Start wafliron on the indicated volume or aggregate.

Syslog Message

Checksum error due to WAFL context mismatch for super block %llu on %s %s%s, %s.

Parameters

blockNum (LONGINT): Block number.
vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information of the disk drive.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of the disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.zeroed.blkErr

Severity

NOTICE

Description

This message occurs when the system discovers that the stored checksum for a block allocated by WAFL® is zero. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum error due to zeroed block on %s %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
disk_info (STRING): Formatted information of the disk drive.
blockNum (LONGINT): Block number.
ino_type (STRING): Inode type.

fileid (INT): File identifier.

snapid (INT): Snapshot identifier.

bno (LONGINT): Block number in the file.

level (INT): Level.

shelf (STRING): Disk shelf identifier where the disk drive is located.

bay (STRING): Disk bay within the shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): Model string of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.cksum.zeroed.sblkErr

Severity

NOTICE

Description

This message occurs when the system encounters a zeroed super block.Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum error due to zeroed super block %llu on %s %s%s, %s.

Parameters

blockNum (LONGINT): Block number.

vol_type (STRING): Whether the file is contained in an aggregate or a flexible volume.

owner (STRING): Owner of the affected volume or aggregate.

vol (STRING): Name of the volume or aggregate.

disk_info (STRING): Formatted information of the disk drive.

shelf (STRING): Disk shelf identifier where the disk drive is located.

bay (STRING): Disk bay within the shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): Model string of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of the disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

physDiskBlockNum (LONGINT): Physical disk block number for partitioned disk.

raid.config events

raid.config.check.failed

Severity

ERROR

Description

This message occurs during a mirror check, when the system discovers that all plexes have failed in an aggregate.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem volume from the system logs. 2. Determine the reason for the plex failures, such as disk drive, disk shelf, or loop failure. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support.

Syslog Message

%s %s%s: All plexes have failed.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.config.check.failedPlex

Severity

ERROR

Description

This message occurs during a mirror check, when the system discovers that an aggregate has a failed plex.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem volume and failed plex from the system logs. 2. Determine the reason for the plex failure, such as disk drive, disk shelf, or loop failure. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support.

Syslog Message

Plex %s%s has failed.

Parameters

owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.config.check.offlinePlex

Severity

ERROR

Description

This message occurs during a mirror relationship check when the system discovers that an aggregate has become mirror-degraded due to an offline plex.

Corrective Action

Bring the plex back online with the "storage aggregate plex online" command.

Syslog Message

Plex %s%s is offline.

Parameters

aggr (STRING): Name of the aggregate.
plex (STRING): Name of the plex.

raid.config.disk.bad.label

Severity

NOTICE

Description

This message occurs when configuration management detects that an unassimilated disk has a label with unexpected or missing data, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s has bad or missing data on label.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.bad.label.version

Severity

NOTICE

Description

This message occurs when configuration management detects that an unassimilated disk has a label with an unsupported version, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s has an unsupported label version.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.failed

Severity

ERROR

Description

This message occurs when configuration management has detected that an unassimilated disk has failed, and has permanently removed that disk from service.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

%s failed.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM

failure_reason (STRING): A text description of storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.init.failed

Severity

NOTICE

Description

This message occurs when configuration management detects that a disk has failed its device initialization sequence, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s initialization failed.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.labeled.broken

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem disk was failed under a previous release of Data ONTAP®, and has permanently removed that disk from service. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

%s was labeled "broken" in a previous release.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.missing

Severity

INFORMATIONAL

Description

This event is issued when configuration management has detected that an unassimilated disk has gone missing from the filer, and has removed that disk from the configuration.

Corrective Action

(None).

Syslog Message

%s is missing.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.multipleFail

Severity

INFORMATIONAL

Description

This event is generated when we detect additional disk failures during the processing of a failed disk.

Corrective Action

(None).

Syslog Message

While processing failed disks, %d additional disks suffered a failure

Parameters

ndisks (INT): The number of additional disks that have failed

raid.config.disk.not.responding

Severity

NOTICE

Description

This message occurs when configuration management detects that an unassimilated disk is temporarily not responding to requests, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s is not responding.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.rawsize.shrank

Severity

NOTICE

Description

This message occurs when configuration management detects that an unassimilated disk's stored rawsize is greater than the physical size of the disk, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s shrank.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.recovering

Severity

NOTICE

Description

This message occurs when configuration management detects an unassimilated disk that has failed to respond to requests. The disk is temporarily removed from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Attempting to bring %s back into service.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.disk.tradvol

Severity

NOTICE

Description

This message occurs when configuration management detects that the disk belongs to a traditional volume which is not supported on clustered Data ONTAP® systems. The disk is removed from service.

Corrective Action

Install a version of Data ONTAP® that supports the traditional volume, or remove the traditional volume disks.

Syslog Message

The label on %s indicates that the disk belongs to a traditional volume which is not supported on clustered Data ONTAP® systems.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM and carrier serial number.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.admin.failed

Severity

INFORMATIONAL

Description

This event is issued after the "disk fail -i" command is used to administratively fail a filesystem disk, and configuration management has permanently removed that disk from service.

Corrective Action

(None).

Syslog Message

File system %s is being failed by administrator.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.admin.failed.after.copy

Severity

INFORMATIONAL

Description

This message occurs when the "disk fail" command is used to administratively fail a filesystem disk. The disk was copied to a replacement and configuration management has permanently removed that disk from service.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

File system %s is being failed after it was successfully copied to a replacement.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.bad.label

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem disk has a label with unexpected or missing data, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

File system %s has bad or missing data on label.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.bad.label.version

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem disk has a label with an unsupported version, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

File system %s has an unsupported label version.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.failed

Severity

ERROR

Description

This message occurs when configuration management has detected that a filesystem disk has failed, and has permanently removed that disk from service.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

File system %s failed.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.failed.after.copy

Severity

ERROR

Description

This message occurs when a disk reported a predictive failure. Data ONTAP used Rapid RAID Recovery to copy the disk to a replacement. Copying was successful and now the disk is permanently removed from

service.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

File system %s is being failed after it was successfully copied to a replacement.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.missing

Severity

INFORMATIONAL

Description

This event is issued when configuration management has detected that a filesystem disk has gone missing from the filer, and has removed that disk from the configuration.

Corrective Action

(None).

Syslog Message

File system %s is missing.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.not.responding

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem disk is temporarily not responding to requests, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

File system %s is not responding.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.rawsize.shrank

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem disk's stored rawsize is greater than the physical size of the disk, and temporarily removes that disk from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

File system %s shrank.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.disk.recovering

Severity

NOTICE

Description

This message occurs when configuration management detects a filesystem disk that has failed to respond to requests. The disk is temporarily removed from service. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Attempting to bring file system %s back into service.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.filesystem.lun.resized

Severity

NOTICE

Description

This message occurs when configuration management detects that a filesystem gateway LUN's stored rawsize does not match the physical size of the LUN. Resizing of a filesystem gateway LUN is not supported. Only gateway LUNs that are spare can be resized. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

File system %s resized.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.online.notComp

Severity

ERROR

Description

This message occurs when a volume or aggregate cannot be brought online because SnapLock® is not supported on this version of Data ONTAP®.

Corrective Action

Install a version of Data ONTAP that is supported with SnapLock, available from your vendor.

Syslog Message

%s %s%s is being taken offline. SnapLock is not supported on this version of Data ONTAP.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.config.online.notCompressComp

Severity

ERROR

Description

This message occurs when a compressed virtual volume cannot be brought online because compressed volumes have adaptive storage efficiency which is not supported in this release of Data ONTAP®.

Corrective Action

Install a version of Data ONTAP that supports adaptive storage efficiency.

Syslog Message

Volume '%s%s' is being taken offline because it is compressed and the container uses adaptive storage efficiency which is not supported in this version of Data ONTAP.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.

raid.config.online.req.bad.fsid

Severity

NOTICE

Description

This message occurs when a aggregate cannot be mounted because it has an invalid file system identifier (FSID) or the same FSID as another aggregate.

Corrective Action

(None).

Syslog Message

%s %s%s has a duplicate or invalid FSID.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.config.online.req.badvers

Severity

ERROR

Description

This message occurs when an aggregate that appeared to be mountable could not be mounted because the WAFL® version is invalid.

Corrective Action

Install a new version of Data ONTAP® because the aggregate is from a later version of software.

Syslog Message

This version of Data ONTAP does not recognize the filesystem of %s %s%s. The %s is probably from a later version of the software and is being left unmounted.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that could not be mounted.
vol_type2 (STRING): Repeat volume type for the syslog message.

raid.config.online.req.corrupt4

Severity

ERROR

Description

This event occurs when dynamic assimilation produced a writable aggregate which could not be mounted because it has been marked as having an inconsistent file system.

Corrective Action

Run wafliron for the aggregate.

Syslog Message

%s %s%s is inconsistent. Mounting it prior to running wafliron raises the risk of further file system inconsistencies and data corruption.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that could not be mounted.

raid.config.online.req.failed

Severity

NOTICE

Description

This message occurs when an attempt to mount an aggregate fails, even though it appeared to be mountable.

Corrective Action

(None).

Syslog Message

Unable to mount %s %s%s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that could not be mounted.

raid.config.online.req.inconsist

Severity

ERROR

Description

This event occurs when dynamic assimilation produced an aggregate which appeared to be mountable, but it could not be mounted because the WAFL magic number in the volume information block was incorrect. This is caused by an incomplete aggregate copy or snapmirror initialization.

Corrective Action

Repeat aggr copy or snapmirror initialize that was not completed.

Syslog Message

%s %s%s was left in an inconsistent state by an aborted vol copy or aggr copy copy or an aborted snapmirror initial (level 0) transfer. In order to bring it online, you must either destroy and re-create it, or complete an initial snapmirror transfer or vol copy or aggr copy.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that could not be mounted.

raid.config.online.req.invalid

Severity

NOTICE

Description

This message occurs when an aggregate that appeared to be mountable could not be mounted because neither volume info block was valid.

Corrective Action

(None).

Syslog Message

Neither volume information block of %s %s%s is valid.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that could not be mounted.

raid.config.online.req.mt.iv

Severity

ERROR

Description

This message occurs when WAFL® attempts to take over a mirror volume that does not have a valid mirror type. This might be caused by upgrading to the current version of Data ONTAP®, which requires the mirror-type attribute, from a previous version that does not.

Corrective Action

You cannot fix this condition by file system repair mechanisms such as wafliron. The data is not lost, but it is inaccessible as a mirror volume with invalid mirror information, and it cannot be brought online or taken offline. To reclaim the space you can destroy the mirror volume, but this results in the loss of all data on the mirror volume. If you choose to destroy the mirror volume anyway, the command to do so is as follows: 'volume delete -vserver vserver_name -volume vol_name'.

Syslog Message

The mirror type associated with the mirror volume %s %s%s is invalid.

Parameters

vol_type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the affected volume.
vol (STRING): Name of the volume.

raid.config.online.req.nospace

Severity

ERROR

Description

This event occurs when there is insufficient free space in the containing aggregate to online a flexible volume and apply the flexible volumes space guarantees.

Corrective Action

This error can be corrected by making more space available in the aggregate.

Syslog Message

Containing aggregate does not have enough space to allow %s to be onlined.

Parameters

vol (STRING): The name of the flexible volume which could not be onlined.

raid.config.online.req.ok

Severity

NOTICE

Description

This message occurs when dynamic assimilation produced an aggregate which was successfully mounted.

Corrective Action

(None).

Syslog Message

%s %s%s is mounted. Time taken to mount the aggregate was %llu milliseconds.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that was mounted.

time (LONGINT): Time taken to mount the aggregate.

raid.config.online.req.unsup

Severity

EMERGENCY

Description

This message occurs when the system determines that the deployment in which this aggregate was created does not match the current (clustered or nonclustered) deployment of Data ONTAP®.

Corrective Action

Bring the aggregate online on a node that matches the clustered or nonclustered deployment in which it was created.

Syslog Message

This deployment of Data ONTAP does not support the file system of '%s %s'. It is being taken offline.

Parameters

type (STRING): Volume type.
vol (STRING): Name of the aggregate.

raid.config.raidsize.change

Severity

NOTICE

Description

This message occurs when a change to the raidsize parameter is made to match the change made to the raidtype parameter for a given volume or aggregate.

Corrective Action

If the new raidsize is not appropriate, change it with the "storage aggregate modify -aggregate aggregate_name -maxraidsize new_size" command. For cache raidsize change, change it with the "storage aggregate modify -aggregate aggregate_name -cache_raid_group_size new_size" command.

Syslog Message

%s %s%s:%sraidsize is adjusted from %d to %d after changing raidtype.

Parameters

vol_type (STRING): Volume type.
host (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
cache_string (STRING): String to indicate if its cache raidsize change. If this is a raidsize change for cache (SSD) RG then the string "cache" will be printed, it is empty otherwise.
old_size (INT): Previous raidsize value.
new_size (INT): New raidsize value.

raid.config.rg.size.reminder

Severity

ERROR

Description

Size limits for raid4 groups are significantly reduced in Data ONTAP® 6.5. Very large raid4 groups do not provide adequate protection from data loss and they are not supported any more. Volumes with large raidgroups should be converted to raid_dp. This message occurs daily as part of system check if some raid groups are too large for raid4 raidtype. That can happen after upgrade from an older version of Data ONTAP with more lax raidsize restrictions. It can also be the result of changing raidtype from raid_dp to raid4. That should be used only to revert to an older version of Data ONTAP. In all other cases, change raidtype of volumes with such large raid groups to raid_dp.

Corrective Action

Change raidtype of the aggregate to raid_dp: "storage aggregate modify -aggregate aggregate_name -raidtype raid_dp"

Syslog Message

Volume %s%s has a raid group larger than the limit for raid4 raidtype (max. raid group size: %d, limit is %d). Convert the volume to raid_dp.

Parameters

host (STRING): Owner of the volume.
vol (STRING): Volume name.
rg_size (INT): Size of the largest raid group in the volume.
limit (INT): Size limit for raid4 group.

raid.config.spare.disk.admin.removed

Severity

INFORMATIONAL

Description

This event is issued when the "disk remove" command is used to administratively fail a spare disk, and configuration management has temporarily removed that disk from service.

Corrective Action

(None).

Syslog Message

Spare %s is being removed by administrator.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.bad.label

Severity

NOTICE

Description

This message occurs when configuration management detects that a spare disk has a label with unexpected or missing data, and has temporarily removed that disk from service.

Corrective Action

(None).

Syslog Message

Spare %s has bad label.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.bad.label.version

Severity

NOTICE

Description

This message occurs when configuration management detects that a spare disk has a label with an unsupported version, and has temporarily removed that disk from service.

Corrective Action

(None).

Syslog Message

Spare %s has an unsupported label version.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.failed

Severity

ERROR

Description

This message occurs when configuration management has detected that a spare disk has failed, and has permanently removed that disk from service.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Spare %s failed.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.missing

Severity

INFORMATIONAL

Description

This event is issued when configuration management has detected that a spare disk has gone missing from the filer, and has removed that disk from the configuration.

Corrective Action

(None).

Syslog Message

Spare %s is missing.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.not.responding

Severity

NOTICE

Description

This message occurs when configuration management detects that a spare disk is not responding to requests, and has temporarily removed that disk from service.

Corrective Action

(None).

Syslog Message

Spare %s is not responding.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.rawsize.shrank

Severity

NOTICE

Description

This message occurs when configuration management detects that a spare disk's stored rawsize is greater than the physical size of the disk, and has temporarily removed that disk from service.

Corrective Action

(None).

Syslog Message

Spare %s shrank.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.spare.disk.recovering

Severity

NOTICE

Description

This message occurs when configuration management detects a spare disk that has failed to respond to requests. The disk is temporarily removed from service. Attempts will be made to automatically bring this disk back into service. Unless the disk continues to exhibit the same problem, recovery should be complete within one hour. Otherwise, a follow-on notification will be sent within five hours to signal that the disk is being permanently removed from service.

Corrective Action

(None).

Syslog Message

Attempting to bring spare %s back into service.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.config.vol.destroyed

Severity

INFORMATIONAL

Description

This event is issued when an aggregate is destroyed.

Corrective Action

(None).

Syslog Message

%s '%s%s' destroyed.

Parameters

vol_type (STRING): Volume type.

owner (STRING): Owner of the affected aggregate.

volumeName (STRING): Name of the aggregate object.

raid.config.vol.renamed

Severity

INFORMATIONAL

Description

This event is issued when an aggregate is renamed.

Corrective Action

(None).

Syslog Message

%s '%s%s' renamed to '%s%s'.

Parameters

vol_type (STRING): Volume type.

oldOwner (STRING): Owner of the aggregate.

oldVolumeName (STRING): The original name of the object.

newOwner (STRING): String indicating the owner of the affected object. This is exactly the same as the oldOwner parameter (or should be).

newVolumeName (STRING): The new name of the object.

raid.config.vol.set.raid.cv

Severity

NOTICE

Description

This event is issued when an aggregate with block checksums is changing its checksum verification flag value.

Corrective Action

(None).

Syslog Message

%s %s%s: checksum verification %s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
volumeName (STRING): Name of the aggregate object.
status (STRING): The status of the command.

raid.data events

raid.data.lw.blkErr

Severity

NOTICE

Description

This message occurs when a WAFL® generated read detects a stale block due to a lost write. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Bad data detected on %s%s, disk block (DBN) %llu, aggregate block (VBN) %llu.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number that contains the error.
blockNum (LONGINT): Physical block number containing the error.
vbn (LONGINT): Volume block number containing the error.

raid.data.lw.recFail

Severity

ALERT

Description

This message occurs when raid recommends a drive for failure because it detected more than the allowed number of lost-write errors on the disk. These errors are caused by a malfunction in the disk.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Disk recommended for failure for exceeding threshold of %d lost-write error%s on %s%s.

Parameters

threshold (INT): The threshold for checksum errors due to wafl context mismatches
suffix (STRING): The suffix used to report in syslog
owner (STRING): String indicating the owner of the affected volume.
disk_info (STRING): The name of the disk.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.data.ws.blkErr

Severity

NOTICE

Description

This message occurs when RAID detects a stale data block using WAFL® sanity check. The bad block is then reconstructed from parity and the remaining data disks. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

WAFL sanity check detected bad data on volume %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

owner (STRING): Owner of the affected volume.
vol (STRING): Name of the volume.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Block number.

ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
fileBlockNum (LONGINT): Block number in the file.
level (INT): Indirection level.

raid.data.ws.blkErr.ignore

Severity

NOTICE

Description

This message occurs when WAFL® sanity check detects a stale data block while wafliron is running. RAID ignores the error because wafliron fixes it. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

WAFL sanity check detected bad data on volume %s%s, %s, disk block %llu, %s inode number %d, snapid %d, file block %llu, level %d. RAID is ignoring this error because wafliron is already running.

Parameters

owner (STRING): String indicating the owner of the affected volume.
vol (STRING): Name of the volume.
disk_info (STRING): Formatted information about the disk.
blockNum (LONGINT): Block number.
ino_type (STRING): Inode type.
fileid (INT): File identifier.
snapid (INT): Snapshot identifier.
fileBlockNum (LONGINT): Block number in the file.
level (INT): Indirection level.

raid.data.ws.sblkErr

Severity

NOTICE

Description

This message occurs when a WAFL® sanity check detects a stale superblock. The bad superblock is reconstructed from parity and the remaining data disks. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

WAFL sanity check detected bad superblock on volume %s%s, %s, disk block (DBN) %llu, aggregate block (VBN) %llu.

Parameters

> **owner** (STRING): Owner of the affected aggregate.
> **vol** (STRING): Name of the volume.
> **disk_info** (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.
> **blockNum** (LONGINT): Block number.
> **vbn** (LONGINT): Volume block number.

raid.data.ws.sblkErr.ignore

Severity

> NOTICE

Description

> This message occurs when WAFL® sanity check detects a stale superblock while wafliron is running. RAID ignores the error because wafliron tries to fix it. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

> (None).

Syslog Message

> WAFL sanity check detected bad superblock on volume %s%s, %s, block %llu. RAID is ignoring this error because wafliron is already running.

Parameters

> **owner** (STRING): String indicating the owner of the affected volume.
> **vol** (STRING): Name of the volume.
> **disk_info** (STRING): Formatted information of the disk.
> **blockNum** (LONGINT): Block number.

raid.debug events

raid.debug

Severity

> INFORMATIONAL

Description

> The SCSI debug event.

Corrective Action

> (None).

Syslog Message

> %s

Parameters

> **debug_string** (STRING): The debug statement that occurred.

raid.disable events

raid.disable.remote.nvlog

Severity

INFORMATIONAL

Description

This event is issued when RAID sub system disables recording in the partner's NVRAM entries for the log based file system.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Disabled Remote NVRAM logging.

Parameters

(None).

raid.disk events

raid.disk.capacity.info

Severity

NOTICE

Description

This event is issued to inform what the sum of all disk sizes is as well as what system capacity limit is.

Corrective Action

(Call support).

Syslog Message

System capacity visible is %s of the %s maximum.

Parameters

actual (STRING): Actual capacity of system
limit (STRING): Capacity limit of system

raid.disk.cksum.type.changed

Severity

INFORMATIONAL

Description

This message occurs when a disk's checksum type changes from either block to zoned, or zoned to block. It might occur, for example, due to a disk firmware update or a user request.

Corrective Action

(None).

Syslog Message

Disk %s checksum type was changed from %s to %s.

Parameters

disk_info (STRING): Formatted disk information
old_type (STRING): Old checksum type. "block" or "zoned".
new_type (STRING): New checksum type. "block" or "zoned".
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.failed.unknownPool

Severity

INFORMATIONAL

Description

This event is issued when a disk is failed but is not in an aggregate or a known disk pool.

Corrective Action

(None).

Syslog Message

Failed %s without a tree but with a unknown pool as a parent.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.fast.zero.done

Severity

NOTICE

Description

This message occurs when a fast zeroing operation is completed on a disk.

Corrective Action

(None).

Syslog Message

%s : disk zeroing complete (0x%llx).

Parameters

disk_info (STRING): Formatted information about the disk which has completed its zeroing operation.
fz_signature (LONGINTHEX): Random generated unique fast zero signature.
fz_signature_old (LONGINTHEX): Random generated unique fast zero signature, previous one.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of disk in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.home.id.changed

Severity

INFORMATIONAL

Description

This event is issued when a change in a disk's home id is detected, independent of any disk change notification event.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): Formatted disk information
old_home_id (STRING): Previous home host.
new_home_id (STRING): New home host.
old_home_sysid (LONGINT): Previous home sysid.
new_home_sysid (LONGINT): New home sysid.
shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.illegalAttach

Severity

ALERT

Description

This message occurs when ONTAP detects that a disk has been incorrectly attached to the system.

Corrective Action

Check disk shelf cabling and verify it meets SyncMirror requirements and wiring rules for this system.

Syslog Message

%s is illegally attached. %s

Parameters

disk_info (STRING): Name of the disk.
err_string (STRING): Illegal Attach error.
instanceId (INT): Instance identifier.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of disk in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.inserted

Severity

INFORMATIONAL

Description

This event is issued when a disk is inserted into the system.

Corrective Action

(None).

Syslog Message

%s has been inserted into the system

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.io.bypass

Severity

INFORMATIONAL

Description

This event is issued when a read error is detected but ignored because the aggregate is in media error bypass mode.

Corrective Action

(None).

Syslog Message

media error bypass enabled, ignoring read error on disk block %llu of %s

Parameters

blockNum (LONGINT): The disk block number
disk_info (STRING): The formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.io.toFailedDisk

Severity

ERROR

Description

This event is issued when an attempt is made to I/O a failed disk.

Corrective Action

In maintenance mode, remove ownership of this disk and assign the correct ownership

Syslog Message

DBG: %s is attempting I/O to failed %s

Parameters

who (STRING): Module attempting I/O
disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.abort

Severity

NOTICE

Description

This event occurs when the administrator aborts maintenance testing of a disk or when an error that is unrelated to the disk occurs. The disk is failed because testing could not be completed.

Corrective Action

(None).

Syslog Message

%s tests were aborted.

Parameters

disk_info (STRING): Formatted information of the disk
start_code (STRING): Start code for internal support use
end_code (STRING): End code for internal support use
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk
disk_rpm (STRING): Rotational speed of disk, in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.admin.abort

Severity

NOTICE

Description

This event occurs when administrator-initiated maintenance testing of a disk is aborted by the administrator or when an error that is unrelated to the disk occurs. The disk is made available as a spare.

Corrective Action

(None).

Syslog Message

%s tests were aborted.

Parameters

disk_info (STRING): Formatted information of the disk
end_code (STRING): End code for internal support use
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where the disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk
disk_rpm (STRING): Rotational speed of disk, in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.admin.done

Severity

NOTICE

Description

This event occurs when administrator- initiated maintenance testing of a disk is completed successfully. The disk is made available as a spare.

Corrective Action

(None).

Syslog Message

%s tests were completed successfully.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where the disk is located

vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk
disk_rpm (STRING): Rotational speed of disk, in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.admin.failed

Severity
NOTICE

Description
This message occurs when a disk fails one or more maintenance tests. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action
(None).

Syslog Message
%s tests failed.

Parameters
disk_info (STRING): Formatted information about the disk.
end_code (STRING): End code for internal support use.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.admin.start

Severity
NOTICE

Description
This event occurs when the administrator starts maintenance testing on a disk.

Corrective Action
(None).

%s will be tested.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk
disk_rpm (STRING): Rotational speed of disk, in RPM
start_reason (STRING): This states that the administrator started maintenance testing on a disk.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.bypassed

Severity

INFORMATIONAL

Description

This message occurs when a disk that has an error bypasses maintenance testing, even though the error typically would cause the disk to enter the maintenance center. The reason might be that the maintenance center is disabled, that there are not enough spare disks available in the system, or that there are already the maximum number of disks in the maintenance center.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of the disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
bypass_reason (STRING): Reason for bypassing maintenance testing on the disk.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.done

Severity

NOTICE

Description

This event occurs when maintenance testing of a disk is completed successfully. The disk is made available as a spare.

Corrective Action

(None).

Syslog Message

%s tests were completed successfully.

Parameters

disk_info (STRING): Formatted information of the disk
start_code (STRING): Start code for internal support use
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where the disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk
disk_rpm (STRING): Rotational speed of disk, in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.exceed

Severity

NOTICE

Description

This message occurs when a disk exceeds the number of times it is allowed to be tested. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s exceeded the number of allowed entries to maintenance testing.

Parameters

disk_info (STRING): Formatted information about the disk.
start_code (STRING): Start code for internal support use.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.failed

Severity

NOTICE

Description

This message occurs when a disk fails one or more maintenance tests. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s tests failed.

Parameters

disk_info (STRING): Formatted information about the disk.

start_code (STRING): Start code for internal support use.

end_code (STRING): End code for internal support use.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.maint.start

Severity

NOTICE

Description

This event occurs when a disk begins maintenance testing.

Corrective Action

(None).

Syslog Message

%s will be tested.

Parameters

disk_info (STRING): Formatted information of the disk

shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where the disk is located

vendor (STRING): Name of the vendor of the disk

model (STRING): Model string of the disk

firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk

disk_rpm (STRING): Rotational speed of disk, in RPM

start_reason (STRING): The reason for starting maintenance testing on the disk.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.mcc.mismatch

Severity

ERROR

Description

This message occurs when a disk with a non-zero disaster recovery (DR) home ID is illegally attached to a system that is not configured for MetroCluster(tm) operation.

Corrective Action

To reuse this disk on a non MetroCluster enabled system, use the "storage disk removeowner" command, followed by the "storage disk assign" command.

Syslog Message

The disk %s was previously owned by a MetroCluster enabled system. This system is not configured for MetroCluster operations.

Parameters

disk_info (STRING): Name of the disk.

instanceId (INT): Instance identifier.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

dr_home_owner_id (LONGINT): NVRAM system ID of the disk's DR home owner.

raid.disk.missing

Severity

INFORMATIONAL

Description

This event is issued either when a disk is pulled from the system or when all paths to it have disappeared.

Corrective Action

(None).

Syslog Message

%s is missing from the system

Parameters

disk_info (STRING): Formatted disk information
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.offline

Severity

NOTICE

Description

This event is issued when offlining a drive

Corrective Action

(None).

Syslog Message

Marking %s%s offline.

Parameters

owner (STRING): The owner of the drive
disk_info (STRING): Formatted information of the disk

raid.disk.online

Severity

NOTICE

Description

This event is issued when onlining an offline drive.

Corrective Action

(None).

Syslog Message

Onlining %s%s.

Parameters

owner (STRING): The owner of the drive
disk_info (STRING): Formatted information of the disk

raid.disk.online.fail

Severity

NOTICE

Description

This event is issued if the drive failed while it was offline. The drive will be moved to broken pool as part of the online process.

Corrective Action

(None).

Syslog Message

Failing %s%s during online.

Parameters

owner (STRING): The owner of the drive
disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.owner.change.fail

Severity

EMERGENCY

Description

This message occurs when an ownership change request initiated by RAID, for either spare disks or the disks of an aggregate, fails due to an error from SANOWN.

Corrective Action

The system automatically retries changing ownership of the disks. If the condition persists, contact NetApp technical support.

Syslog Message

RAID initiated ownership change request failed (aggregate: %s error: %s). This request will be retried.

Parameters

aggregate (STRING): Empty string for spare disks, or name of the aggregate for filesystem disks.
reason (STRING): Reason for failure.
retry_count (INT): Number of retry attempts.
disk_count (INT): Number of disks in the ownership change request.

raid.disk.owner.changed

Severity

INFORMATIONAL

Description

This event is issued when change in a disk's owner is detected, independent of any disk change notification event.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): Formatted disk information
old_owner (STRING): Previous disk owner.
new_owner (STRING): New disk owner.
old_owner_id (LONGINT): Old disk owner ID.
new_owner_id (LONGINT): New disk owner ID.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.ownership.change

Severity

NOTICE

Description

This message occurs when a non-filesystem disk is prepared for ownership change by administrator forcibly.

Corrective Action

(None).

Syslog Message

Ownership of %s, is being changed by administator forcibly.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.pool.changed

Severity

INFORMATIONAL

Description

This message occurs when a change in a disk's current pool is detected, independent of any disk change notification event.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): Formatted disk information.
old_pool (STRING): Previous pool for this disk.
new_pool (STRING): New pool for this disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.predictiveFailure

Severity
ERROR

Description
This message occurs when some condition of the disk indicates that it may fail soon. It is first marked as prefailed. If an appropriate spare is available, it will be selected for Rapid RAID Recovery. In that process, the prefailed disk will be copied to the spare. The filer will stop using the prefailed disk when copying is done. At that time, the disk may be removed and replaced.

Corrective Action
The raid.rg.diskcopy.done event is issued when the disk copy is complete. After that wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message
%s reported a predictive failure and it is prefailed; it will be copied to a spare and failed

Parameters
disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.read.abort.detect

Severity
NOTICE

Description
This message occurs when a disk encounters an abort error during a read operation. The system retries the disk read request and gradually takes the disk out of service by copying the content to a replacement disk.

Corrective Action
(None).

Syslog Message
Read abort error encountered on %s, disk rebuild assist mode %s, block #%llu, length = %u; I/O will be

retried.

Parameters

    disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
    disk_ra_mode (STRING): Disk rebuild assist mode indicating whether mode is enabled.
    blockNum (LONGINT): Physical disk block number of the first block in this I/O chain.
    length (INT): Number of disk blocks in this I/O chain.
    error_code (INT): Error code returned by the disk driver.
    shelf (STRING): Shelf identifier where the disk is located.
    bay (STRING): Disk bay within the shelf where the disk is located.
    vendor (STRING): Name of the disk vendor.
    model (STRING): Model string of the disk.
    firmware_revision (STRING): Disk firmware revision number.
    serialno (STRING): Serial number of the disk.
    disk_type (INT): Type of disk.
    disk_rpm (STRING): Rotational speed of the disk, in RPM.
    carrier (STRING): Unique ID of the carrier in which the disk is installed.
    site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.read.abort.recons

Severity

    NOTICE

Description

    This message occurs when a disk encounters an abort error during a read operation, and a subsequent attempt to retry the read request fails. The system services the read request by reconstructing the data from parity data. The system gradually takes the disk out of service by copying the content to a replacement disk.

Corrective Action

    (None).

Syslog Message

    Read retry failed on %s, block #%llu.

Parameters

    disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
    blockNum (LONGINT): Physical disk block number on which the read operation failed.
    error_code (INT): Error code returned by the disk driver.
    shelf (STRING): Shelf identifier where the disk is located.
    bay (STRING): Disk bay within the shelf where the disk is located.
    vendor (STRING): Name of the disk vendor.
    model (STRING): Model string of the disk.
    firmware_revision (STRING): Disk firmware revision number.
    serialno (STRING): Serial number of the disk.
    disk_type (INT): Type of disk.
    disk_rpm (STRING): Rotational speed of the disk, in RPM.
    carrier (STRING): Unique ID of the carrier in which the disk is installed.
    site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.replace.job.done

Severity

NOTICE

Description

This message occurs when a disk replace job finishes successfully.

Corrective Action

(None).

Syslog Message

Disk %s replaced with disk %s.

Parameters

srcName (STRING): Name of the source disk.
dstName (STRING): Name of the destination disk.

raid.disk.replace.job.failed

Severity

ERROR

Description

This message occurs when a disk replace job fails.

Corrective Action

Take any corrective action indicated by the specific reason for the failure and then retry the disk replace operation. If the condition persists, contact NetApp technical support.

Syslog Message

Failed to replace disk %s with disk %s. Reason: %s.

Parameters

srcName (STRING): Name of the source disk.
dstName (STRING): Name of the destination disk.
reason (STRING): Reason for failure.

raid.disk.replace.job.start

Severity

NOTICE

Description

This message occurs when a job to replace a shared disk with a spare disk begins. The operation can be triggered either by an administrator or automatically by Data ONTAP®. A couple of such scenarios follows: a) There is a mix of drives from different SyncMirror® pools in the same plex of a mirrored aggregate. b) An aggregate is using a partitioned disk on an external shelf when there is a spare disk available on an internal shelf.

Corrective Action

(None).

Syslog Message

Starting disk replacement of disk %s with disk %s.

Parameters

srcName (STRING): Name of the source disk.
dstName (STRING): Name of the destination disk.

raid.disk.replace.job.stop

Severity

NOTICE

Description

This message occurs when a disk replace job is stopped by an administrator.

Corrective Action

(None).

Syslog Message

Stopping disk replacement of disk %s with disk %s.

Parameters

srcName (STRING): Name of the source disk.
dstName (STRING): Name of the destination disk.

raid.disk.sanitization.aborted

Severity

INFORMATIONAL

Description

This event is issued when disk sanitization is aborted using the "disk sanitize" abort" command.

Corrective Action

(None).

Syslog Message

Sanitization aborted for %s

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'

raid.disk.sanitization.failed

Severity
INFORMATIONAL

Description
This event is issued if disk sanitization fails due to a fatal error.

Corrective Action
(None).

Syslog Message
Sanitization failed for %s

Parameters
disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, the site is 'Local'.

raid.disk.timeout.force.recovery

Severity
NOTICE

Description
This event is issued when a disk continues to exhibit symptoms of long response times (timeouts) while it is in the process of being replaced via a copy. In this case, a forced recovery is initiated by removed the disk from the raid group. A complete rewrite of the disk is expected to help recover bad media patches.

Corrective Action
(None).

Syslog Message
Forcing recovery of %s%s as a result of exceeding timeout recovery threshold of %d.

Parameters
owner (STRING): String indicating the owner of the affected volume.
disk_info (STRING): The name of the disk.

threshold (INT): Threshold for the maximum number of timeouts which can be tolerated while a disk is in the process of being replaced.

shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where disk is located

vendor (STRING): Name of the vendor of the disk

model (STRING): Model string of the disk drive

firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.timeout.recommend.recovery

Severity

NOTICE

Description

This event is issued when a disk repeatedly exhibits symptoms of long response times (timeouts) due to bad media patches. The disk is recommended for a full recovery as a result of crossing timeout recovery thresholds. The contents of the disk will be copied to a replacement. A complete rewrite of the disk is expected to help recover bad media patches.

Corrective Action

(None).

Syslog Message

%s%s recommended for recovery as a result of exceeding timeout recovery threshold of %d.

Parameters

owner (STRING): String indicating the owner of the affected volume.

disk_info (STRING): The name of the disk.

threshold (INT): Threshold for the maximum number of timeout recovery operations above which the disk is recommended for recovery.

shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where disk is located

vendor (STRING): Name of the vendor of the disk

model (STRING): Model string of the disk drive

firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.timeout.recovery.invalid.range

Severity

NOTICE

Description

This event is issued if an invalid blockNum range was reported during disk timeout recovery

Corrective Action

(None).

Syslog Message

Invalid block range reported for %s during disk timeout recovery : start %llu, end %llu

Parameters

disk_info (STRING): Formatted information of the disk for which the invalid blockNum range was reported.
start (LONGINT): Starting disk block number for the recovery range
end (LONGINT): Ending disk block number for the recovery range

raid.disk.timeout.recovery.read.err

Severity

NOTICE

Description

This event is issued when timeout recovery io detects a read error

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu during aggressive timeout recovery

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.tooBig.all.reminder

Severity

ERROR

Description

This message occurs when the sum of disk sizes of all disks connected in the system exceed the maximum capacity supported for this platform.

Corrective Action

Contact NetApp technical support. For information about correcting the problem, search for the "raid.disk.tooBig.all.reminder" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

System capacity %s exceeds the %s maximum supported disk capacity.

Parameters

actual (STRING): Actual total capacity of disks currently connected to the system.
limit (STRING): Maximum supported disk capacity limit of the system.

raid.disk.unfail.done

Severity

INFORMATIONAL

Description

This event is issued when a failed disk has been unfailed using the "disk unfail" command, and returned to service as a spare.

Corrective Action

(None).

Syslog Message

%s unfailed, and is now a spare

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.unfail.error

Severity

INFORMATIONAL

Description

This event is issued when an error is encountered while attempting to unfail a disk.

Corrective Action

(None).

Syslog Message

%s could not be unfailed

Parameters

disk_info (STRING): Formatted information of the disk object
error_str (STRING): A raid error string, describing the error encountered during disk unfail.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.unfail.reassim

Severity

INFORMATIONAL

Description

This event occurs when a failed disk was unfailed using the "disk unfail" command, and is in process of being reassimilated.

Corrective Action

(None).

Syslog Message

%s was unfailed, and is now being reassimilated

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.unload.done

Severity

INFORMATIONAL

Description

This event is issued when a failed or removed disk has been spun down by the driver.

Corrective Action

It is safe to pull the disk from the shelf.

Syslog Message

Unload of %s has completed successfully

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.verify.abort.detec

Severity

NOTICE

Description

This message occurs when a disk encounters an abort error during a background media verify operation. The system gradually takes the disk out of service by copying the content to a replacement disk.

Corrective Action

(None).

Syslog Message

Media verify abort error encountered on %s, block #%llu, length = %llu.

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
blockNum (LONGINT): Physical disk block number of the first block in this I/O chain.
length (LONGINT): Number of disk blocks in this I/O chain.
error_code (INT): Error code returned by the disk driver.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.zero.aborted

Severity

NOTICE

Description

This message occurs when disk zeroing has been aborted. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s : disk zeroing aborted (%s).

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.
reason (STRING): Reason for abort.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.zero.done

Severity

NOTICE

Description

This message occurs when a disk zeroing operation completes.

Corrective Action

(None).

Syslog Message

%s : disk zeroing complete

Parameters

disk_info (STRING): Formatted information of disk object that has completed its zeroing operation
duration (INT): The amount of time the zeroing operation required, in seconds

shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.zero.done.failed.die

Severity

NOTICE

Description

This message occurs when a disk zeroing operation completes.

Corrective Action

(None).

Syslog Message

%s : disk zeroing for failed die complete

Parameters

disk_info (STRING): Formatted information of disk object that has completed its zeroing operation
duration (INT): The amount of time the zeroing operation required, in seconds
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disk.zero.fake

Severity

NOTICE

Description

This message occurs when disk zeroing has been faked on a disk.

Corrective Action

(Call support).

Syslog Message

%s: fake disk zeroing complete

Parameters

disk_info (STRING): Formatted information of the disk on which zeroing has been faked
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.diskadd events

raid.diskadd.abort

Severity

ERROR

Description

This message occurs when the system aborts the addition of disks to an aggregate.

Corrective Action

Use the reason provided to determine an action from the following list: - Change in raidgroup size: Retry adding disks to the volume. - One of the target plexes has failed: Delete the failed plex. Use the "storage aggregate plex delete" command. When the failed plex is removed and the aggregate state appears as "unmirrored", retry adding disks to the volume. - For further information or assistance, contact NetApp technical support.

Syslog Message

Addition of disks to %s %s%s aborted %s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
reason (STRING): Reason the disk addition was aborted.

raid.diskadd.add.abort

Severity

ERROR

Description

This message occurs when the addition of disks to an aggregate is aborted due to a detected disk failure.

Corrective Action

Retry adding disks to the aggregate. If disk list was specified for addition, replace the failed disk with a good disk in the list.

Syslog Message

Addition of disks to %s %s%s aborted due to failure of %s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.diskadd.create.abort

Severity

ERROR

Description

This message occurs when the creation of a an aggregate is aborted due to a detected disk failure.

Corrective Action

Retry the aggregate creation. If disk list was specified for creation, replace the failed disk with a good disk in the list.

Syslog Message

Creation of %s %s%s aborted due to failure of %s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the disk shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): String representing the name of the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disktoc events

raid.disktoc.rawsizeChange

Severity

INFORMATIONAL

Description

This event is generated when it is detected from the disk Table Of Contents that a disk's stored rawsize does not match the physical size of the disk. (see burt 81939 for more details).

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): The Formatted information of the disk
label_rawsize (LONGINT): The rawsize according to the label.
phys_rawsize (LONGINT): The rawsize according to the storage layer
instanceFile (STRING): The internal file code
instanceId (INT): The internal instance identifier
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.disktoc.tooRecent

Severity

ALERT

Description

This message occurs when RAID discovers that the disk's table of contents version is newer than that supported by this release of Data ONTAP®. Data ONTAP takes appropriate recovery actions, as described in additional logged events.

Corrective Action

If this message was seen during boot, reboot with the previous kernel version. If this message was seen when the system was up and running, it is likely due to adding a disk to a running system. Remove the disk from system. if the intent is to add the disk as a spare disk, use the 'priv set advanced;unfail -s disk_name' command to mark the disk as not zeroed spare. NetApp technical support For information about correcting the problem, search for the "raid.disktoc.tooRecent" keyword on the Knowledgebase of the NetApp Support Site.

Syslog Message

%s has a disk table of contents version (%d) more recent than the currently supported version (%d).

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
disktocVersion (INT): Disk table of contents version.
disktocCurrentVersion (INT): Current disk table of contents version supported by the software.
instanceFile (STRING): Internal file code.
instanceId (INT): Internal instance identifier.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.enable events

raid.enable.remote.nvlog

Severity

INFORMATIONAL

Description

This event is issued when RAID sub system enables recording in the partner's NVRAM entries for the log based file system.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Enabled Remote NVRAM logging; status: %d.

Parameters

status (INT): Remote NVRAM log enable status

raid.encrypt events

raid.encrypt.disabled

Severity
ALERT

Description
This message occurs when a node is enabled for encryption by RAID, but the system is not FIPS compliant. Volume encryption and decryption will not be available because the system is not considered secure. Encrypted volumes will not be accessible until this problem is solved.

Corrective Action
Reboot the system. If the issue persists after a reboot contact NetApp technical support for assistance.

Syslog Message
RAID encryption is not available because the system is not FIPS compliant. Error: %d.

Parameters
error_code (INT): Reason for non FIPS compliance.

raid.encrypt.no.key

Severity
ERROR

Description
This message occurs when an encrypted volume is being mounted and the encryption key can not be found. The volume is inaccessible until this problem is solved.

Corrective Action
Verify that the network is accessible. Verify that the key manager server is available by using the "security key-manager external show-status" command.

Syslog Message
No encryption key is available for volume '%s' because of error '%d'.

Parameters
volume (STRING): Volume involved.
error (INT): Reason code for the failure to find a key.

raid.fdr events

raid.fdr.failed.ok

Severity
INFORMATIONAL

Description
This message occurs when we detect an entry in the failed disk registry, and have forcibly failed the disk.

Corrective Action

Please make sure that the event message raid.disk.unload.done or raid.carrier.remove has been seen in the log. And then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

%s successfully deleted from spare pool

Parameters

disk_info (STRING): Formatted information of the disk object
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.fdr.full

Severity

ERROR

Description

This message occurs when we determine that the failed disk registry is full and we must eliminate an existing disk entry.

Corrective Action

Please make sure that the event message raid.disk.unload.done or raid.carrier.remove has been seen in the log. And then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Failed disk registry full! Recycling entry for %s model %s (S/N %s)

Parameters

vendor (STRING): The name of the vendor
model (STRING): The model number
serialno (STRING): The serial number

raid.fdr.inservice

Severity

NOTICE

Description

This message occurs when the system detects an entry in the failed disk registry, but the disk appears to be incorporated into an aggregate.

Corrective Action

(None).

Syslog Message

WARNING: %s previously failed, but is currently in service (%s %s).

Parameters

disk_info (STRING): Formatted information about the disk object.
vol_type (STRING): Volume type, which is always aggregate.
vol (STRING): Name of the aggregate.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.fdr.reminder

Severity

ERROR

Description

This message occurs as a reminder that a previously detected failed disk is still present in the system and needs to be removed.

Corrective Action

The failed disk carrier is fully prepared for removal. Remove and replace the failed disk carrier.

Syslog Message

Failed %s is still present in the system and should be removed.

Parameters

disk_info (STRING): Formatted information about the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.fdr.update.error

Severity

NOTICE

Description

This message occurs when RAID fails to add an entry for a failed disk into the failed disk registry. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Unable to %s to %s (error %d).

Parameters

op (STRING): Type of add operation that failed.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.
errorCode (INT): Error code.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.flexvol events

raid.flexvol.lock.conflict

Severity

INFORMATIONAL

Description

This message occurs when a configuration operation on an aggregate (for example, adding disks, relocating aggregate disks, etc.), fails to get exclusive lock access because of one or more indirect conflict volume locks held by child volumes within the aggregate.

Corrective Action

Retry the failed operation after the current operation has completed.

Syslog Message

Exclusive access on the aggregate %s by operation %s failed because of an indirect conflict flexvol lock with current operation %s.

Parameters

aggregate (STRING): Name of the aggregate.
attempted_op_name (STRING): Name of the operation that tried to get exclusive access.
current_op_name (STRING): Name of the operation that is currently holding exclusive access.

raid.fm events

raid.fm.disasterSummary

Severity

ERROR

Description

This event contains summary information for the disaster takeover. It is only generated if a disaster takeover occurs.

Corrective Action

(None).

Syslog Message

RAID disaster takeover summary: number of partner volumes and aggregates=%d, number of rewrite-fsid partner volumes and aggregates=%d, number of out-of-date partner volumes and aggregates=%d, number of ignored partner volumes and aggregates=%d, number of local volumes and aggregates=%d, number of out-of-date local volumes and aggregates=%d

Parameters

nPvols (INT): The number of partner volumes involved in the takeover
nRwPvols (INT): The number of rewrite-fsid partner volumes
nOodPvols (INT): The number of out-of-date partner volumes
nIgnPvols (INT): The number of ignored partner volumes
nLvols (INT): The number of local volumes involved in the takeover
nOodLvols (INT): The number of out-of-date local volumes

raid.fm.fixedMixedOwnership

Severity

NOTICE

Description

This message occurs when assimilation detects that an aggregate contains disks with multiple current owner IDs and fixes the ownership issue.

Corrective Action

(None).

Syslog Message

Aggregate %s was detected to have disks with mixed current owner IDs and the ownership has been fixed.

Parameters

aggregate (STRING): Name of the aggregate that contained disks with mixed owner IDs.
disk_count (INT): Number of disks that had their current owner ID fixed.
current_owner_id (INT): NVRAM system ID of the aggregate's current owner.

raid.fm.leftBehindAggr

Severity

NOTICE

Description

This message occurs when an aggregate is not returned to its original owner in a giveback operation.

Corrective Action

Run the 'storage failover giveback' command to return the aggregate to its original owner.

Syslog Message

Aggregate %s was left behind during giveback.

Parameters

aggregate (STRING): Name of the aggregate that was left behind.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
current_owner_id (LONGINT): NVRAM system ID of the aggregate's current owner.

raid.fm.replayFail

Severity

NOTICE

Description

This message occurs when RAID replay fails for partner aggregates during takeover. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID takeover: RAID replay failed. Status: %d.

Parameters

status (INT): Replay failure status code.

raid.fm.takeoverFail

Severity

ALERT

Description

This message occurs when a high-availability (HA) takeover attempt fails due to an assimilation error.

Corrective Action

If partner aggregates are failing to assimilate on the surviving node of the HA pair, contact technical support for assistance with bringing these aggregates online.

Syslog Message

RAID takeover failed: %s.

Parameters

reason (STRING): Reason the takeover failed.

raid.fm.volDisasterBadState

Severity

ERROR

Description

This message occurs when the system cannot split an out-of-date volume due to a bad volume state.

Corrective Action

(None).

Syslog Message

Partner volume %s identity unaltered during HA disaster takeover: bad state %s. Clients might see stale data.

Parameters

vol (STRING): Name of the aggregate.
state (STRING): Aggregate state.

raid.fm.volDisasterFail

Severity

ERROR

Description

This message occurs when the system encounters an error during a high availability (HA) disaster takeover.

Corrective Action

(None).

Syslog Message

Partner volume %s HA disaster takeover error (%s): %s. Clients will not be able to access this volume.

Parameters

vol (STRING): Name of the aggregate.
type (STRING): Type of error
reason (STRING): Internal reason code

raid.fm.volDisasterIgnore

Severity

ERROR

Description

This message occurs when the system ignores a volume during a high availability (HA) disaster takeover.

Corrective Action

(None).

Syslog Message

Partner volume %s identity unaltered during HA takeover: %s. Clients might see stale data.

Parameters

vol (STRING): Name of the aggregate.
reason (STRING): Reason for ignoring the volume
code (INT): Internal code

raid.fm.volDisasterWarn

Severity

ERROR

Description

This message occurs when the system encounters a nonfatal error during a high availability (HA) disaster takeover

Corrective Action

(None).

Syslog Message

Partner volume %s HA disaster takeover warning (%s): %s Volume takeover might be incomplete and clients might see stale data.

Parameters

vol (STRING): Name of the aggregate.
type (STRING): Type of error
reason (STRING): Internal reason code

raid.fm.volFsidRewrite

Severity

ERROR

Description

This message occurs when the system rewrites a volume's or aggregate's canceling giveback high availability (HA) disaster takeover.

Corrective Action

Remount the clients of the volume.

Syslog Message

Partner %s %s FSID was rewritten during HA disaster takeover. Clients must be remounted.

Parameters

vol_type (STRING): Volume type.
vol (STRING): Name of the aggregate.
oldFsid (INT): Old fsid
newFsid (INT): New fsid

raid.fm.volFsidRewriteOod

Severity

ERROR

Description

This message occurs when the system rewrites a volume's File System ID (FSID) during a high availability (HA) disaster takeover with an out-of-date volume.

Corrective Action

Remount the clients of the volume.

Syslog Message

Partner volume %s FSID was rewritten during HA disaster takeover. Clients must be remounted.

Parameters

vol (STRING): Name of the aggregate.
oldFsid (INT): Old fsid
newFsid (INT): New fsid

raid.foreignaggregate events

raid.foreignAggregate.online.rtIDChanged

Severity

NOTICE

Description

This message occurs when the system changes the RAID tree ID of a foreign aggregate that is being brought online.

Corrective Action

(None).

Syslog Message

%s: RAID tree ID was changed from %s to %s.

Parameters

aggregate (STRING): Name of the aggregate.
oldrtID (STRING): Old RAID tree ID of the aggregate.
newrtID (STRING): New RAID tree ID of the aggregate.

raid.fs events

raid.fs.disk.ownership.change

Severity

NOTICE

Description

This message occurs when a filesystem disk is prepared for ownership change by administrator forcibly.

Corrective Action

(None).

Syslog Message

Ownership of %s, which is part of an aggregate %s, is being changed by administrator forcibly.

Parameters

disk_info (STRING): Formatted information of the disk.
vol_name (STRING): Name of the aggregate.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.hybrid events

raid.hybrid.SSDHAExceed

Severity

ERROR

Description

This message occurs when the sum of all sizes of solid state disks (SSDs) disks of hybrid aggregates on this node and its partner node is larger than the maximum system limit. Takeover might fail because of this. It is issued by the Storage Health Monitor.

Corrective Action

Bring the sum of all sizes of SSDs of hybrid aggregates on this node and its partner below the limit. If you cannot bring the sum of all sizes of SSDs of hybrid aggregates on both nodes below the limit, disable HA failover by using the 'storage failover modify -node [nodename] -enabled false' command. However, this compromises the high availability of your system and is only recommended for use until the size issue has been resolved. To avoid this problem in the future, be careful when adding SSDs to existing hybrid aggregates not to exceed the limit for both nodes in the HA pair.

The sum of all sizes of SSD disks of hybrid aggregates on this node and its partner %s, exceeds %s. Takeover might fail because of this.

Parameters

hybrid_ssd_disks_sizes (STRING): Sum of sizes of SSDs disks of hybrid aggregates on this node and its partner node.
limit (STRING): Maximum system limit total of sizes of SSDs of hybrid aggregates.

raid.hybrid.SSDTotExceed

Severity

ERROR

Description

This message occurs as a reminder that the sum of all sizes of SSD disks of hybrid aggregates is too large. It is issued by Storage Health Monitor.

Corrective Action

Contact NetApp technical support.

Syslog Message

The sum of sizes of SSD disks of hybrid aggregates %s exceeds the %s maximum. Contact NetApp technical support.

Parameters

ssd_disks_size (STRING): Total of sizes of SSD disks of hybrid aggregates.
limit (STRING): Maximum total of sizes of SSD disks of hybrid aggregates.

raid.initialize events

raid.initialize.nonhomed.disk

Severity

NOTICE

Description

This message occurs when a foreign or partner homed spare disk is detected during system initialization.

Corrective Action

In Maintenance mode, remove this disk's ownership by using the 'disk remove_ownership disk_name' command and assign it to the intended node by using the 'disk assign disk_name' command.

Syslog Message

%s: foreign or partner homed spare disk detected during system initialization.

Parameters

disk_info (STRING): Formatted information of the foreign spare disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.label events

raid.label.io.readError

Severity

NOTICE

Description

This message occurs when a RAID label read I/O failure is detected. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Label read on %s failed with storage error %s. The system will stop using the disk for I/O operations.

Parameters

disk_info (STRING): Formatted information about the disk.

error_str (STRING): Error string.

instanceFile (STRING): Internal file code.

instanceId (INT): Internal instance identifier.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Character string representing the model of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.label.io.revertError

Severity

NOTICE

Description

This message occurs when a RAID label revert to consistent state fails during assimilation. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Label revert on plex %s, %s failed.

Parameters

plex (STRING): Name of the containing plex.
disk_info (STRING): Formatted information about the disk.
error_str (STRING): Error string.
instanceFile (STRING): Internal file code.
instanceId (INT): Internal instance identifier.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Character string representing the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.label.io.writeError

Severity

NOTICE

Description

This message occurs when a RAID label write I/O failure is detected. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Label write on %s failed with storage error %s. The system will stop using the disk for I/O operations.

Parameters

disk_info (STRING): Formatted information about the disk.
error_str (STRING): Error string.
instanceFile (STRING): Internal file code.
instanceId (INT): Internal instance identifier.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Character string representing the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.label.raidarea.invalidVersion

Severity

NOTICE

Description

This message occurs when the system discovers that a disk has a RAIDArea object version of 0, which is invalid. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s has %s RAIDArea object with a version (%d) that is not supported (the current object version is %d).

Parameters

disk_info (STRING): Formatted information about the disk.
type (STRING): RAIDArea object type.
version (INT): RAIDArea object version.
currentVersion (INT): Current version of this RAIDArea object type supported by the software.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Character string representing the model of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.label.raidarea.tooRecent

Severity

NOTICE

Description

This message occurs when the system discovers that a disk has an invalid RAIDArea object version. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s has %s raidarea object with a version (%d) more recent than the currently supported version (%d).

Parameters

disk_info (STRING): Formatted information about the disk.
type (STRING): RAIDArea object type.
version (INT): RAIDArea object version.
currentVersion (INT): Current version of this RAIDArea object type supported by the software.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Character string representing the model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.labeledit events

raid.labeledit.buildtree

Severity

NOTICE

Description

This event occurs when you run the 'label buildtree' command to create an aggregate from a collection of disks.

Corrective Action

(None).

Syslog Message

%s %s was created using the 'label buildtree' command.

Parameters

voltype (STRING): Volume type.
volname (STRING): Name of the aggregate created by the command.
cmdline (STRING): Command line used to create the aggregate.

raid.labelmaint events

raid.labelmaint.isolate.aggr

Severity

INFORMATIONAL

Description

This message occurs when the system places an aggregate into online label maintenance mode.

Corrective Action

(None).

Syslog Message

Placing volume %s%s into online label maintenance mode.

Parameters

owner (STRING): Owner of the disk drive.
vol (STRING): Name of the aggregate.

raid.labelmaint.isolate.disk

Severity

INFORMATIONAL

Description

This message occurs when the system places a disk drive into online label maintenance mode. Online label maintenance is a utility available in normal mode that enables users to perform operations on disk drives that typically are allowed only in maintenance mode. Examples of such operations are label editing and volume recovery.

Corrective Action

(None).

Syslog Message

Placing %s%s into online label maintenance mode.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk drive.

raid.labelmaint.unisolate

Severity

INFORMATIONAL

Description

This message occurs when the system takes a disk drive out of online label maintenance mode.

Corrective Action

(None).

Syslog Message

Taking %s%s out of online label maintenance mode.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk drive.

raid.mcc events

raid.mcc.disasterSummary

Severity

INFORMATIONAL

Description

This message reports the summary information for the MetroCluster(tm) switchover operation.

Corrective Action

(None).

Syslog Message

RAID switchover summary: number of DR aggregates=%d number of mirrored aggregates=%d number of unmirrored aggregates=%d number of out-of-date aggregates=%d number of mirrored aggregates with both plexes online=%d number of offline aggregates switched over=%d

Parameters

nTotalAggrs (INT): Number of DR aggregates switched over.
nMirAggrs (INT): Number of mirrored aggregates switched over.
nUnmirAggrs (INT): Number of unmirrored aggregates switched over.
nOodPlexes (INT): Number of mirrored aggregates with out-of-date plexes.
nMirComplete (INT): Number of mirrored aggregates with both the plexes online during switchover.
nOfflineAggrs (INT): Number of offline aggregates switched over.

raid.mcc.heal.aggrs.canceled

Severity

ERROR

Description

This message occurs when a 'metrocluster heal -phase aggregates' operation is canceled due to the presence of left-behind high-availability (HA) aggregates.

Corrective Action

Giveback still in progress can cause this condition. To see if this is the case, execute 'storage failover show-giveback'. If it is in progress, wait until it completes and retry the 'metrocluster heal -phase aggregates' command. If giveback is not in progress then execute a 'storage failover giveback -ofnode' from the node currently hosting the left-behind aggregate. After this is complete, retry the 'metrocluster heal -phase aggregates' command.

Syslog Message

Aggregate %s homed on %s is a %s, canceling heal aggregates operation.

Parameters

aggregate (STRING): Name of the aggregate
home_owner_name (STRING): Name of the node home to the left behind aggregate.
reason (STRING): Activity that is preventing heal aggregates operation.

raid.mcc.heal.roots.canceled

Severity

ERROR

Description

This message occurs when a 'metrocluster heal -phase root-aggregates' operation is canceled because a switched over root aggregate is busy with another configuration operation. An ongoing configuration operation can cause this condition.

Corrective Action

Wait a few minutes, then retry the 'metrocluster heal -phase root-aggregates' command.

Syslog Message

Aggregate %s is busy with another configuration operation. Canceling heal root-aggregates operation.

Parameters

aggregate (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing the heal root-aggregates operation.

raid.mcc.ISL.down

Severity

ERROR

Description

This message occurs when a MetroCluster(tm) DR operation other than disaster switchover is canceled because remote site storage is not visible; this can happen if the Inter-Switch Links are down.

Corrective Action

1. Verify remote cluster connectivity. Use the "storage switch add -switch-ipaddress <switch-ip-address>" command to start monitoring the switches if not already so. Then use the "storage switch show -port" and "storage switch show -san-config" commands to verify FC connectivity to the remote site. 2. Retry the operation. If the error persists, contact technical support for assistance.

Syslog Message

%s was canceled because remote site storage is not visible; Inter-Switch Links might be down.

Parameters

operation (STRING): The DR operation which was canceled.

raid.mcc.leftBehindAggr

Severity

NOTICE

Description

This message occurs when an aggregate is not returned to its original owner in a switchback operation.

Corrective Action

Run the 'metrocluster switchback' command to return the aggregate to its original owner. If the condition persists, contact NetApp technical support.

Syslog Message

Aggregate %s was left behind during switchback.

Parameters

aggregate (STRING): Name of the aggregate that was left behind.
aggregate_uuid (STRING): Universal Unique Identifier(UUID) of the aggregate.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
current_owner_id (LONGINT): NVRAM system ID of the aggregate's current owner.
dr_home_owner_id (LONGINT): NVRAM system ID of the aggregate's disaster recovery(DR) home owner.

raid.mcc.leftBehindSpare

Severity

NOTICE

Description

This message occurs when a spare disk is not returned to its original owner in a switchback operation.

Corrective Action

Run the 'metrocluster switchback' command to return the disk to its original owner.

Syslog Message

Disk %s was left behind during switchback.

Parameters

disk (STRING): Name of the disk that was left behind.
disk_uuid (STRING): Universal Unique Identifier(UUID) of the disk.
home_owner_id (LONGINT): NVRAM system ID of the disk's home owner.
current_owner_id (LONGINT): NVRAM system ID of the disk's current owner.
dr_home_owner_id (LONGINT): NVRAM system ID of the disk's disaster recovery(DR) home owner.

raid.mcc.nso.canceled

Severity

ERROR

Description

This message occurs when a MetroCluster negotiated switchover is canceled due to activity in RAID on a volume or aggregate.

Corrective Action

Reissue the 'metrocluster switchover' command after the pending or in-progress operation on the aggregate is complete. The 'override-vetoes' option may be used to proceed without waiting for the pending or in-progress operation to complete.

Syslog Message

Aggregate %s is %s, canceling negotiated switchover.

Parameters

aggregate (STRING): Name of the aggregate.

reason (STRING): Activity that is preventing negotiated switchover.

raid.mcc.nso.dr.leftbehind

Severity

ERROR

Description

This message occurs when a MetroCluster switchover is canceled due to the presence of left behind aggregates from a switchback operation.

Corrective Action

If the aggregate is not in a "failed" or "limbo" state, issue the 'metrocluster switchback' command to return the aggregate to its original owner. Reissue the 'metrocluster switchover' command.

Syslog Message

Aggregate %s was left behind from a switchback operation, canceling negotiated switchover.

Parameters

aggregate (STRING): Name of the aggregate that was left behind.
aggregate_uuid (STRING): Universal Unique Identifier of the aggregate.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
current_owner_id (LONGINT): NVRAM system ID of the aggregate's current owner.
dr_home_owner_id (LONGINT): NVRAM system ID of the aggregate's disaster recovery home owner.

raid.mcc.nso.ha.leftbehind

Severity

ERROR

Description

This message occurs when a MetroCluster switchover is canceled due to the presence of left behind aggregates from a giveback operation.

Corrective Action

If the aggregate is not in a "failed" or "limbo" state, issue the 'storage failover giveback' command to return the aggregate to its original owner. Reissue the 'metrocluster switchover' command.

Syslog Message

Aggregate %s was left behind from a giveback operation, canceling negotiated switchover.

Parameters

aggregate (STRING): Name of the aggregate that was left behind.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
home_owner_id (LONGINT): NVRAM system ID of the aggregate's home owner.
current_owner_id (LONGINT): NVRAM system ID of the aggregate's current owner.

raid.mcc.remote.storage.down

Severity

ERROR

Description

This message occurs when a MetroCluster(tm) DR operation other than disaster switchover is canceled because remote site storage is not visible; this can happen if the FC or SAS links to the remote storage are down.

Corrective Action

1. Verify remote cluster connectivity. Use the "fcp interface show" command to verify FC connectivity to the remote site. 2. Retry the operation. If the error persists, contact technical support for assistance.

Syslog Message

%s was canceled because remote site storage is not visible; FC or SAS links might be down.

Parameters

operation (STRING): The DR operation which was canceled.

raid.mcc.root.configError

Severity

ALERT

Description

This message occurs when the system detects a configuration error on the root aggregate in a MetroCluster(tm) configuration. Remote disks and local disks are not being used in the proper configuration. One plex should comprise only disks from the local pool, Pool0, and the other plex should comprise only disks from the remote pool, Pool1. If the inter-site communication fails between the MetroCluster sites, access to remote disks will be lost. This creates an elevated risk of local site downtime.

Corrective Action

Replace all remote (Pool1) disks in the local plex with local (Pool0) spares. In the remote plex, replace all local (Pool0) disks with remote (Pool1) spares. Use the 'storage disk replace' command to initiate disk replacements.

Syslog Message

In the root aggregate, %s

Parameters

error_message (STRING): Description of which plexes have disks from the wrong pool.

raid.mcc.root.unmirrored

Severity

ALERT

Description

This message occurs when the root aggregate is not mirrored in a MetroCluster(tm) configuration.

Corrective Action

Mirror the root aggregate by using the 'storage aggregate mirror' command.

Syslog Message

The root aggregate is not mirrored. This aggregate must be mirrored in a MetroCluster configuration or a switchover of this site might not be possible in case of a disaster.

Parameters

(None).

raid.mcc.switchbackCanceled

Severity

ERROR

Description

This message occurs when a MetroCluster switchback is canceled due to activity in RAID on a disaster partner volume or aggregate.

Corrective Action

Reissue the 'metrocluster switchback' command after the pending or in-progress operation on the DR partner aggregate is complete. The override-vetoes option may be used to proceed without waiting for the pending or in-progress operation to complete.

Syslog Message

DR aggregate %s is %s, canceling switchback.

Parameters

vol (STRING): Name of the aggregate
reason (STRING): Activity that is preventing DR switchback

raid.mcc.switchbackSummary

Severity

INFORMATIONAL

Description

This message occurs when a node has finished releasing switched over aggregates and spare disks during switchback.

Corrective Action

(None).

Syslog Message

RAID switchback summary: switched back aggregates: %d, left behind aggregates: %d, switched back spares: %d

Parameters

switched_back_aggr_count (INT): Count of aggregates that were switched back.
left_behind_aggr_count (INT): Count of switched over aggregates that remain after switchback.
switched_back_spare_count (INT): Count of spare disks that were switched back.

raid.mgrio events

raid.mgrio.lw.id.inconsist

Severity

NOTICE

Description

This message occurs during a SyncMirror® resynchronization operation, when the system detects an inconsistent RAID write signature on a RAID stripe. This RAID inconsistent write signature might be due to a write operation on disk that was not committed successfully. Data ONTAP® attempts to recover such a bad block automatically. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature on RAID group %s%s, stripe #%llu, during SyncMirror resync operation.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.mgvio events

raid.mgvio.lw.id.inconsist

Severity

NOTICE

Description

This message is generated after detecting an inconsistent RAID write signature on a RAID stripe, during SyncMirror verify operation. This inconsistent RAID write signature may be due to a write operation on disk was not committed successfully. Data ONTAP will attempt to recover such bad block automatically. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature on RAID group %s%s, stripe #%llu, during a SyncMirror verify operation.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.mirror events

raid.mirror.aggrSnapUse

Severity

NOTICE

Description

This message occurs when a SyncMirror® aggregate uses aggregate snapshots other than SyncMirror aggregate snapshots. SyncMirror uses aggregate snapshots to allow fast resynchronization after one plex was temporarily offline. However, Data ONTAP® sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another. To reduce the chance of deleting SyncMirror snapshots, you should not create or schedule aggregate snapshots in SyncMirror aggregates.

Corrective Action

Disable automatic aggregate snapshots and delete all snapshots in the aggregate except those with names starting with "mirror_resync" or "mirror_verify". To disable automatic aggregate snapshots, use the 'snap sched -A aggr-name 0' command. To list snapshots in the aggregate, use the 'snap list -A aggr-name' command. To delete a snapshot, use the 'snap delete -A aggr-name snapshot-name' command. For further information or assistance, contact NetApp technical support.

Syslog Message

Aggregate snapshots are used in SyncMirror %s '%s%s'. Creating or scheduling snapshots in SyncMirror aggregates is not recommended.

Parameters

vol_type (STRING): Always "aggregate," indicating that the warning is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.mirror.bigio.restrict

Severity

ALERT

Description

An aggregate that experienced a medium error during reconstruction is restricted and marked wafl-inconsistent, but starting wafliron has failed. This event is issued to alert operator that aggregate is not accessible and wafliron must be started to allow access to it.

Corrective Action

Start wafliron on the indicated aggregate.

Syslog Message

%s %s is restricted. Start wafliron to allow access to it

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.mirror.bigio.restrict.failed

Severity

EMERGENCY

Description

This message occurs when automatically restricting an aggregate fails after a medium error happened during a reconstruction.

Corrective Action

Contact NetApp technical support. For further information about correcting the problem, see the knowledgebase article 3013638.

Syslog Message

Failed to restrict the %s %s (%s)

Parameters

vol_type (STRING): Volume type.
vol (STRING): Name of the aggregate.
reason (STRING): Specific reason preventing the restrict operation.

raid.mirror.bigio.wafliron.nostart

Severity

EMERGENCY

Description

This message occurs when wafliron fails to start automatically on an aggregate that experienced a medium error during reconstruction and is restricted and marked WAFL® inconsistent.

Corrective Action

Contact NetApp technical support. For further information about correcting the problem, see the knowledgebase article 3013638.

Syslog Message

Wafliron cannot start on %s %s (%s)

Parameters

vol_type (STRING): Volume type.
vol (STRING): Name of the aggregate.
reason (STRING): Specific reason preventing wafliron to start.

raid.mirror.faultIsolation.reminder

Severity

ERROR

Description

This message occurs when both plexes of a SyncMirror® configuration have disks in the same hardware-based disk pool.

Corrective Action

a) Identify the problem aggregate from the system logs. b) Determine which mirror plexes have disks in the same hardware-based pools. c) Determine how this occurred: possible causes include 1) Wiring problem 2) Reconstruction forced mixed pools 3) Mirror was created forcibly d) Based on the information you gather, determine how to correct the issue. For example, use the "storage disk replace" command to copy the disk belonging to the wrong pool to a disk belonging to the right pool. e) If you need assistance, contact NetApp technical support.

Syslog Message

%s %s plexes not fault isolated. Multiple plexes have disks in: %s

Parameters

voltype (STRING): Aggregate or volume.
volname (STRING): Name of the aggregate or volume.
pool (STRING): Disk pools that have disks from the aggregate.

raid.mirror.lowSnapReserve

Severity

ERROR

Description

This message occurs when the aggregate snapshot reserve in a SyncMirror® aggregate is too low, increasing the risk of deleting SyncMirror snapshots. SyncMirror uses aggregate snapshots to allow fast resynchronization after a temporary loss of connectivity to one plex. However, Data ONTAP® sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another.

Corrective Action

Increase the aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'. Do not decrease the aggregate snapshot reserve in SyncMirror aggregates below the default 5%. The suggested snapshot reserve might vary from message to message for the same aggregate if the write load on the aggregate changes and especially if the aggregate option 'resyncsnaptime' is set to a significantly lower value than the default 60 minutes. If one suggestion seems unreasonably high, you might want to track messages for several days and set the aggregate snapshot reserve to the highest value that is consistently suggested during periods of high write load on the aggregate.

Syslog Message

Aggregate snapshot reserve in SyncMirror %s '%s%s' is too low. It is set to %d%%. Increase it to %d%%.

Parameters

vol_type (STRING): Always "aggregate," indicating that the warning is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
current_snap_reserve (INT): Current aggregate snapshot reserve (percent).
suggested_snap_reserve (INT): Suggested higher aggregate snapshot reserve (percent).

raid.mirror.read.mismatch

Severity

NOTICE

Description

This message occurs when the system detects a mismatch between data in two plexes of a SyncMirror® aggregate. The system does not perform data verification by reading from both plexes during normal operation, but it does so during wafliron. The system fixes the inconsistency across mirrored plexes.

Corrective Action

(None).

Syslog Message

Mirror read verification failed in the %s '%s%s': mismatch between disks %s and %s (vbn %llu, blockNum %llu).

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
srcDisk (STRING): Name of the disk in the first plex.
dstDisk (STRING): Name of the disk in the second plex.
volumeBno (LONGINT): Volume block number.
blockNum (LONGINT): Disk block number.

raid.mirror.readerr.block.rewrite

Severity

NOTICE

Description

This event is issued when mirror read error handling fixes a multi-disk media or checksum error on Raid0 volumes.

Corrective Action

(None).

Syslog Message

Mirror error handler rewriting bad block on %s%s, block #%llu

Parameters

owner (STRING): Owner of the affected aggregate.
disk (STRING): The name of the disk containing the block being rewritten.
blockNum (LONGINT): The physical block number of the disks being rewritten.

raid.mirror.resync.deferred

Severity

NOTICE

Description

This message occurs when a mirror plex resynchronization is deferred due to inadequate incore resources.

Corrective Action

(None).

Syslog Message

%s%s: resynchronization deferred (%s)

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): Name of the mirror object that could not resynchronize.
reason (STRING): Text describing the reason.

raid.mirror.resync.deferred.ok

Severity

NOTICE

Description

This message occurs when a previously deferred resynchronization is now ready to proceed because of availability of incore resources.

Corrective Action

(None).

Syslog Message

%s%s: resynchronization previously deferred, now proceeding

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): Name of the mirror object that can now resynchronize.

raid.mirror.resync.done

Severity

NOTICE

Description

This event is issued when resynchronization has been completed on a specific mirror.

Corrective Action

(None).

Syslog Message

%s: resynchronization completed in %s

Parameters

mirror (STRING): The name of the mirror object that is completed resynchronization
duration (STRING): The amount of time the resynchronization required

raid.mirror.resync.progress

Severity

NOTICE

Description

This message occurs every five minutes while RAID mirror resynchronization is in progress. It also occurs at the end of RAID group synchronization.

Corrective Action

(None).

Syslog Message

%s: mirror resync is %s%% completed. At current throughput rate of %d MB/s it is estimated to finish in %s (HH:MM:SS).

Parameters

tree (STRING): RAID mirrored tree name.
percent (STRING): Percentage of mirror resync completed.
throughput (INT): Current input/output (I/O) rate.
eta_duration (STRING): The amount of time the resynchronization is expected to run.

raid.mirror.resync.snap.base

Severity

INFORMATIONAL

Description

This message occurs at the beginning of a resynchronization and it lists the base and the resynchronization snapshots for the resynchronization.

Corrective Action

(None).

Syslog Message

%s %s%s: base snapshot %d, CP %d (%d), resync snapshot %d, CP %d (%d)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
base_snapid (INT): Base snapshot identifier.
base_CP_count (INT): Base snapshot consistency point count.
base_timestamp (INT): Base snapshot timestamp (seconds since 1/1/1970).
next_snapid (INT): Resynchronization snapshot identifier.
next_CP_count (INT): Resynchronization snapshot consistency point count.
next_timestamp (INT): Resynchronization snapshot timestamp (seconds since 1/1/1970).

raid.mirror.resync.snapcrtfail

Severity

ERROR

Description

This message occurs when resynchronization fails to create a mirror resync snapshot.

Corrective Action

Increase the size of the root volume or delete old snapshots.

Syslog Message

%s %s%s: could not create mirror resynchronization snapshot %s (%s)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being resynchronized.
snapName (STRING): Name of the snapshot that was not created.
error (STRING): Error code returned by the failed operation.

raid.mirror.resync.snapdelfail

Severity

NOTICE

Description

This message occurs when resynchronization fails to delete a mirror resync snapshot. The WAFL® snapshot autodelete functionality will automatically delete the snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s: could not delete mirror resynchronization snapshot %s (%s)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being resynchronized.
snapName (STRING): Name of the snapshot that was not deleted.
error (STRING): Error code returned by the failed operation.

raid.mirror.resync.snaprenamefail

Severity

NOTICE

Description

This message occurs when resynchronization has failed to rename a mirror resync snapshot. The snapshot is marked as invalid and is deleted.

Corrective Action

(None).

%s %s%s: could not rename mirror resynchronization snapshot %s to %s (%s)

Parameters

> **vol_type** (STRING): Volume type.
> **owner** (STRING): Owner of the affected aggregate.
> **vol** (STRING): Name of the aggregate object that is being resynchronized.
> **snapName** (STRING): Name of the snapshot that was not renamed.
> **snapName2** (STRING): Attempted new name of the snapshot.
> **error** (STRING): Error code returned by the failed operation.

raid.mirror.resync.snaprenameok

Severity

> INFORMATIONAL

Description

> This message occurs when resynchronization renames a mirror resync snapshot.

Corrective Action

> (None).

Syslog Message

> %s %s%s: renamed mirror resynchronization snapshot %s to %s

Parameters

> **vol_type** (STRING): Volume type.
> **owner** (STRING): Owner of the affected aggregate.
> **vol** (STRING): Name of the aggregate object that is being resynchronized.
> **snapName** (STRING): Old name of the snapshot that has been renamed.
> **snapName2** (STRING): New name of the snapshot that has been renamed.

raid.mirror.resync.start

Severity

> NOTICE

Description

> This message occurs when resynchronization is initiated on a specific mirror.

Corrective Action

> (None).

Syslog Message

> %s%s: start resynchronize to target %s

Parameters

> **owner** (STRING): Owner of the affected aggregate.
> **mirror** (STRING): Name of the mirror object that is initiating resynchronization.
> **plex** (STRING): Name of the plex object that is the resynchronization target.

raid.mirror.snapDel.degraded

Severity

ALERT

Description

This message occurs when a SyncMirror® aggregate snapshot is deleted while one plex is offline or resynchronizing. Fast resynchronization of that plex (level 1) is no longer possible. The plex must be resynchronized by copying all data from the online plex (level 0). Without an intervention, it is likely that the level 0 resynchronization will also fail repeatedly, and that it will never be completed. SyncMirror uses aggregate snapshots for resynchronization after a temporary loss of connectivity to one plex. Data ONTAP® sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. This message indicates that configuration of aggregate space use must be changed for SyncMirror resynchronization to be completed.

Corrective Action

1. Disable automatic aggregate snapshots in the aggregate using the command 'snap sched -A aggr-name 0'. 2. Get a list of snapshots in the aggregate using the command 'snap list -A aggr-name'. Delete all snapshots in the aggregate except those with names starting with "mirror_resync". 3. Increase the aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'. Increase the aggregate snapshot reserve by as much free space as the aggregate allows, but there is no need to increase it beyond 50%. 4. If further increasing the aggregate snapshot reserve is not possible, disable automatic deletion of aggregate snapshots using the command 'aggr options snapshot_autodelete off'. That might also disable space guarantees on flexible volumes in the aggregate. In that case, you must monitor space used in the aggregate with the command 'df -A aggr-name'. If the aggregate gets full, the application write operations will fail. In environments that are sensitive to that error, such as CIFS or LUNs, disabling automatic deletion of aggregate snapshots should be avoided if possible. If you enable automatic deletion of aggregate snapshots using the command 'aggr options snapshot_autodelete on', the plex resynchronization will probably fail again. 5. If resynchronization cannot be completed without filling up the aggregate, consider adding more disks to the aggregate. 6. After successful resynchronization, enable automatic deletion of aggregate snapshots using the command 'aggr options snapshot_autodelete on'. Also restore the original aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'. Do not decrease the aggregate snapshot reserve in SyncMirror aggregates below the default 5%.

Syslog Message

The SyncMirror aggregate snapshot in %s '%s%s' is being deleted while the aggregate is mirror-degraded. Level 1 resync is not possible.

Parameters

vol_type (STRING): Always "aggregate," indicating that the message is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.mirror.snapDel.normal

Severity

ERROR

Description

This message occurs when a SyncMirror® aggregate snapshot is deleted while plexes are synchronized. This creates no immediate problem because Data ONTAP® creates a new SyncMirror aggregate snapshot, but it indicates that the same event can occur when one plex is offline or resynchronizing, which is a

problem. SyncMirror uses aggregate snapshots to allow fast resynchronization after a temporary loss of connectivity to one plex. Data ONTAP sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another.

Corrective Action

Increase the aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'. Do not decrease the aggregate snapshot reserve in SyncMirror aggregates below the default 5%. The suggested snapshot reserve might vary from message to message for the same aggregate if the write load on the aggregate changes. If one suggestion seems unreasonably high, you might want to track messages for several days and set the aggregate snapshot reserve to the highest value that is consistently suggested during periods of high write load on the aggregate.

Syslog Message

The SyncMirror aggregate snapshot in %s '%s%s' is being deleted. The aggregate snapshot reserve is set to %d%%. Increase it to %d%%.

Parameters

vol_type (STRING): Always "aggregate," indicating that the warning is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
current_snap_reserve (INT): Current aggregate snapshot reserve (percent).
suggested_snap_reserve (INT): Suggested higher aggregate snapshot reserve (percent).

raid.mirror.snapEst.degraded

Severity

ERROR

Description

This message occurs periodically when one plex in a SyncMirror® aggregate is offline or failed, and automatic deletion of aggregate snapshots is enabled. It provides an estimate of the time before a SyncMirror snapshot might get deleted. SyncMirror uses aggregate snapshots to allow fast resynchronization after a temporary loss of connectivity to one plex. However, Data ONTAP® sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another.

Corrective Action

1. Disable automatic aggregate snapshots in the aggregate using the command 'snap sched -A aggr-name 0'. 2. Get a list of snapshots in the aggregate using the command 'snap list -A aggr-name'. Delete all snapshots in the aggregate except those with names starting with "mirror_resync". 3. Bring online the plex that is offline or failed as soon as possible. 4. Do not rely only on the estimate of the time before automatic deletion of aggregate snapshots. Monitor space used by the SyncMirror snapshots with the command 'df -A aggr-name'. If SyncMirror snapshots grow beyond the aggregate snapshot reserve, they might be automatically deleted, and that prevents fast SyncMirror resynchronization.

Syslog Message

SyncMirror %s '%s%s' is mirror-degraded. %d%% of the snapshot reserve is used. SyncMirror snapshot is estimated to be automatically deleted in %s.

Parameters

vol_type (STRING): Always "aggregate," indicating that the message is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
snap_reserve_used (INT): Percent of snapshot reserve space used.
est_time_left (STRING): Estimated time until automatic deletion of aggregate snapshots.

raid.mirror.snapResChanged

Severity

NOTICE

Description

This message occurs when the aggregate snapshot reserve in a SyncMirror® aggregate is changed.

Corrective Action

(None).

Syslog Message

The reserve of the aggregate snapshot in SyncMirror aggregate "%s%s" was changed from %d%% to %d%%.

Parameters

owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
old_snap_reserve (INT): Percent of the reserve of the old aggregate snapshot.
new_snap_reserve (INT): Percent of the reserve of the new aggregate snapshot.

raid.mirror.snapResExpand.failed

Severity

ERROR

Description

This message occurs when one plex in a SyncMirror® aggregate is offline, failed, or resynchronizing, and Data ONTAP® attempts to increase the aggregate snapshot reserve in that aggregate to delay deleting SyncMirror snapshots, but changing the aggregate snapshot reserve fails. SyncMirror uses aggregate snapshots to allow fast resynchronization after a temporary loss of connectivity to one plex. However, Data ONTAP sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another.

Corrective Action

1. Try to increase aggregate snapshot reserve using the command 'snap reserve -A aggr-name new-snap-reserve'. 2. Disable automatic aggregate snapshots in the aggregate using the command 'snap sched -A aggr-name 0'. 3. Get a list of snapshots in the aggregate using the command 'snap list -A aggr-name'. Delete all snapshots in the aggregate except those with names starting with "mirror_resync". 4. Bring online the plex that is offline or failed as soon as possible. 5. Monitor space used by the SyncMirror snapshots with the command 'df -A aggr-name'. If SyncMirror snapshots grow beyond the aggregate snapshot reserve, they might be automatically deleted, and that prevents fast SyncMirror resynchronization. 6. When resynchronization is complete, restore the old value for the aggregate snapshot reserve using the command 'snap reserve -A aggr-name old-snap-reserve'.

Syslog Message

An attempt to increase the aggregate snapshot reserve in SyncMirror %s '%s%s' from %d%% to %d%% failed (%s).

Parameters

vol_type (STRING): Always "aggregate," indicating that the message is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
old_snap_reserve (INT): Old aggregate snapshot reserve (percent).
new_snap_reserve (INT): New higher aggregate snapshot reserve (percent).
reason (STRING): Reason for the failure.

raid.mirror.snapResExpanded

Severity

NOTICE

Description

This message occurs when one plex in a SyncMirror® aggregate is offline, failed, or resynchronizing, and the aggregate snapshot reserve in that aggregate is increased to delay deleting SyncMirror snapshots. The aggregate snapshot reserve will be reverted to its previous value when resynchronization is complete. You can always change the aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'. SyncMirror uses aggregate snapshots to allow fast resynchronization after a temporary loss of connectivity to one plex. However, Data ONTAP® sometimes must delete aggregate snapshots to preserve space guarantees for flexible volumes. If that happens during SyncMirror resynchronization or while one plex is offline, the mirror must be reinitialized by copying all data from one plex to another.

Corrective Action

1. Disable automatic aggregate snapshots in the aggregate using the command 'snap sched -A aggr-name 0'. 2. Get a list of snapshots in the aggregate using the command 'snap list -A aggr-name'. Delete all snapshots in the aggregate except those with names starting with "mirror_resync". 3. Bring online the plex that is offline or failed as soon as possible. 4. Monitor space used by the SyncMirror snapshots with the command 'df -A aggr-name'. If SyncMirror snapshots grow beyond the aggregate snapshot reserve, they might be automatically deleted, and that prevents fast SyncMirror resynchronization.

Syslog Message

Aggregate snapshot reserve in SyncMirror %s '%s%s' is increased from %d%% to %d%% while the mirror is degraded or resyncing. Aggregate snapshot reserve will be reverted to the old value when resync is complete.

Parameters

vol_type (STRING): Always "aggregate," indicating that the message is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
old_snap_reserve (INT): Old aggregate snapshot reserve (percent).
new_snap_reserve (INT): New higher aggregate snapshot reserve (percent).

raid.mirror.snapResReverted

Severity

NOTICE

Description

This message occurs when the aggregate snapshot reserve in a SyncMirror® aggregate is reverted to the original value after a successful resynchronization in that aggregate.

Corrective Action

Verify that the new snapshot reserve is correct. You can always change the aggregate snapshot reserve using the command 'snap reserve -A aggr-name percent'.

Syslog Message

Aggregate snapshot reserve in SyncMirror %s '%s%s' was reverted from %d%% back to %d%%.

Parameters

vol_type (STRING): Always "aggregate," indicating that the message is issued about an aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
old_snap_reserve (INT): Old aggregate snapshot reserve (percent).
new_snap_reserve (INT): New aggregate snapshot reserve (percent).

raid.mirror.verify.aborted

Severity

NOTICE

Description

This event is issued when verification has been completed on a specific mirror due to abort.

Corrective Action

(None).

Syslog Message

%s%s: verification stopped after %s

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): The name of the mirror object that has aborted verification
duration (STRING): The amount of time the verification required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.mirror.verify.deferred

Severity

NOTICE

Description

This message occurs when the mirror verification process is postponed due to inadequate resources. Mirror verification is a long running I/O operation that compares the blocks on both sides of mirror and reports any mismatches it finds. The operation will start when it get available resources.

Corrective Action

(None).

Syslog Message

%s%s: verification deferred (%s)

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): Name of the mirror object that could not be verified.
reason (STRING): Reason code.

raid.mirror.verify.deferred.ok

Severity

NOTICE

Description

This message occurs when a deferred mirror verify operation is now ready to proceed because of availability of incore resources.

Corrective Action

(None).

Syslog Message

%s%s: verification previously deferred, now proceeding

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): Name of the mirror object that can now be verified.

raid.mirror.verify.done

Severity

NOTICE

Description

This event is issued when verification has been completed on a specific mirror.

Corrective Action

(None).

Syslog Message

%s%s: verification completed in %s

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): The name of the mirror object that is completed verification
duration (STRING): The amount of time the verification required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.mirror.verify.mismatch

Severity

NOTICE

Description

This message occurs when mirror verification detected and corrected a mismatch.

Corrective Action

(None).

Syslog Message

%s: verify mismatch, disks %s and %s (vbn %llu, blockNum %llu)%s.

Parameters

grpName (STRING): Name of the RAID group object that is being corrected.
srcDisk (STRING): Name of the disk with data used to correct the mismatch.
dstDisk (STRING): Name of the disk being corrected.
volumeBno (LONGINT): Volume block number.
blockNum (LONGINT): Disk block number.
correcting (STRING): " : correcting" if normal verify, "" if -n verify.

raid.mirror.verify.resume

Severity

NOTICE

Description

This event is issued when a verify has been resumed on a mirror pair.

Corrective Action

(None).

Syslog Message

%s%s: resume mirror verification

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): The name of the mirror object that is resuming verification
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.mirror.verify.snapcrtfail

Severity

ERROR

Description

This message occurs when mirror verification fails to create a mirror verify snapshot due to no space on the device for a snapshot or the maximum number of snapshots were reached. Mirror verification is a long running I/O operation that compares the blocks on both sides of mirror and reports any mismatches it finds.

Corrective Action

Increase the size of the root volume or delete old snapshots.

Syslog Message

%s %s%s: could not create mirror verification snapshot %s (%s)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Name of the snapshot that was not created.
error (STRING): Error code returned by the failed operation.

raid.mirror.verify.snapcrtok

Severity

INFORMATIONAL

Description

This event is issued when verification has created a mirror verify snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s: created mirror verification snapshot %s

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Name of the snapshot that has been created.

raid.mirror.verify.snapdelfail

Severity

NOTICE

Description

This message occurs when verification fails to delete a mirror verify snapshot. The WAFL® snapshot autodelete functionality will automatically delete the snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s: could not delete mirror verification snapshot %s (%s)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Name of the snapshot that was not deleted.
error (STRING): Error code returned by the failed operation.

raid.mirror.verify.snapdelok

Severity

INFORMATIONAL

Description

This event is issued when verification has deleted a mirror verify snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s: deleted mirror verification snapshot %s

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Name of the snapshot that has been deleted.

raid.mirror.verify.snaprenamefail

Severity

NOTICE

Description

This message occurs when verification fails to rename a mirror verify snapshot. It is marked as invalid and is deleted.

Corrective Action

(None).

Syslog Message

%s %s%s: could not rename mirror verification snapshot %s to %s (%s)

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Name of the snapshot that was not renamed.
snapName2 (STRING): Attempted new name of the snapshot.
error (STRING): Error code returned by the failed operation.

raid.mirror.verify.snaprenameok

Severity

INFORMATIONAL

Description

This event is issued when verification has renamed a mirror verify snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s: renamed mirror verification snapshot %s to %s

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate object that is being verified.
snapName (STRING): Old name of the snapshot that has been renamed.
snapName2 (STRING): New name of the snapshot that has been renamed.

raid.mirror.verify.start

Severity

NOTICE

Description

This event is issued when a verify has been initiated on a mirror pair.

Corrective Action

(None).

Syslog Message

%s%s: start mirror verification

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): The name of the mirror object that is initiating verification
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.mirror.verify.suspend

Severity

NOTICE

Description

This event is issued when a verify has been suspended on a mirror pair.

Corrective Action

(None).

Syslog Message

%s%s: suspend mirror verification

Parameters

owner (STRING): Owner of the affected aggregate.
mirror (STRING): The name of the mirror object that is suspending verification
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.mirror.vote.badCksum

Severity

INFORMATIONAL

Description

This message occurs when the mirror vote blob contains an invalid checksum. The mirror vote blob holds information describing the active set of mirrored volumes.

Corrective Action

(None).

Syslog Message

RAID: mirror information has an inconsistent checksum.

Parameters

(None).

raid.mirror.vote.incorrectRecords

Severity

INFORMATIONAL

Description

This message occurs when the mirror vote blob has inconsistent contents. The mirror vote blob holds information describing the active set of mirrored volumes. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID: mirror information has inconsistent contents.

Parameters

count (INT): Number of records listed in the blob.

raid.mirror.vote.invalidVersion

Severity

INFORMATIONAL

Description

This message occurs when the mirror vote blob contains an invalid version. The mirror vote blob holds information describing the active set of mirrored volumes.

Corrective Action

(None).

Syslog Message

RAID: mirror information has an unsupported version number (%d).

Parameters

    version (INT): Version information in the blob.

raid.mirror.vote.invalidVol

Severity

    INFORMATIONAL

Description

    This message occurs when the mirror vote information describing a volume is internally inconsistent. The mirror vote information describes the active set of mirrored aggregate. The mirror vote information is ignored.

Corrective Action

    (None).

Syslog Message

    RAID: mirror information for volume UUID %s is inconsistent.

Parameters

    aggr_id (STRING): UUID of the affected volume.

raid.mirror.vote.noRecord

Severity

    INFORMATIONAL

Description

    This message occurs when a mirror vote is required on an aggregate but no vote is present in the mirror vote record. In this case, as both the plexes are available, we ignore mirror voting check.

Corrective Action

    (None).

Syslog Message

    RAID: mirror record missing for %s %s%s.

Parameters

    vol_type (STRING): Volume type.
    owner (STRING): Owner of the affected aggregate.
    vol (STRING): Name of the aggregate.

raid.mirror.vote.noRecord1Plex

Severity

    ERROR

Description

    This message occurs when a mirror vote is required on an aggregate but no vote is present in the mirror vote record. In this case, only one plex is available. The aggregate will be kept offline because the existing plex might contain stale data.

Corrective Action

1. In a storage environment with RAID SyncMirror®, the plex could be missing due to several reasons such as disaster at the site, shelf failure, disk failures, and so on. Try to bring the missing plex online after addressing some of the listed possible causes. 2. If the plex does not come online, bring the aggregate online using the 'storage aggr online' or 'storage plex online' command. This aggregate was kept offline because the existing plex might contain stale data.

Syslog Message

WARNING: Only one plex in %s %s%s is available. %s might contain stale data.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
vol_type2 (STRING): Volume type.

raid.mirror.vote.outOfDate

Severity

NOTICE

Description

This message occurs when Data ONTAP® detects an out-of-date plex. The plex is marked as out-of-date and a transaction subsequently occurs to update the internal RAID tree state.

Corrective Action

(None).

Syslog Message

%s %s%s has been detected as out-of-date and is being marked offline.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.mirror.vote.sbFailed

Severity

ERROR

Description

This message occurs when the local node cannot transfer mirror vote records for aggregates being switched back as part of a switchback operation.

Corrective Action

1. Verify that the DR partner node is up. 2. Run the 'network interface show' command to verify that the cluster network interfaces on the local and DR partner node are up. If not, correct any network issues that could be preventing it.

Syslog Message

Could not communicate with the DR node over the intercluster network while attempting a switchback operation.

Parameters

dr_host (STRING): Disaster recovery (DR) host to which the local node failed to transfer the mirror vote records.

raid.mirror.vote.versionZero

Severity

INFORMATIONAL

Description

This message occurs when the mirror vote blob contains version 0. Typically, this occurs when the mirror vote blob is empty.

Corrective Action

(None).

Syslog Message

RAID: mirror information is empty.

Parameters

(None).

raid.mirror.vote.xferFailed

Severity

ERROR

Description

This message occurs when the local node fails to transfer the mirror vote record of the aggregate during aggregate migration as part of giveback or aggregate relocation.

Corrective Action

1. Verify that the destination node is up. 2. Run the 'network interface show' command to verify that the cluster network interfaces on the local and partner node are up. If they are not up, address any network issues.

Syslog Message

Failed to communicate with the destination node over the cluster network while migrating the aggregate "%s" (UUID: %s) during giveback or aggregate relocation because %s.

Parameters

aggregate (STRING): Name of the aggregate.
aggregate_uuid (STRING): UUID of the aggregate.
reason (STRING): The reason the transfer failed.

raid.monitor events

raid.monitor.maxVols

Severity

ERROR

Description

This message occurs when the hourly monitor indicates that the current aggregate or volume number exceeded the maximum number of supported volumes on the host.

Corrective Action

Check the number of volumes on the host. Destroy the newly created volume if the maximum for the total number of volumes on this host is exceeded.

Syslog Message

WARNING: There are too many (%d) volumes on the host. The limit is %d in %s configuration.

Parameters

numVols (INT): Current number of volumes on the host.
maxVols (INT): Maximum number of volumes supported.
configType (STRING): Current configuration.

raid.multierr events

raid.multierr.bad.block

Severity

ERROR

Description

This message occurs when RAID encounters more errors than the RAID level protection affords, and RAID cannot recover the block. The blocks with errors are marked as bad. When the file system reads this bad block, an error is returned. The file system identifies the bad file and block and recommends the necessary corrective action.

Corrective Action

Check for the WAFL® message "wafl.raid.incons.xxx" and follow the corrective actions outlined there.

Syslog Message

Marking '%s%s', block number %llu, volume block number %llu, as a bad block.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical block number containing the error.
volumeBno (LONGINT): Volume block number.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during an error recovery operation. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during an error recovery operation.

Parameters

owner (STRING): Owner of the affected aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

stored_dbn (INT): Physical disk block number stored in the checksum entry.

expected_dbn (LONGINT): Expected physical disk block number.

stored_vbn (LONGINT): Volume block number stored in the checksum entry.

expected_vbn (LONGINT): Expected volume block number.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the disk shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during error recovery operations. The embedded checksum computed over the checksum entry does not match, indicating the corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during an error recovery operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.cksum.err

Severity

NOTICE

Description

This message occurs when the system detects a checksum error during error recovery operations. The checksum computed does not match the stored checksum, indicating that the block is corrupted. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum error on %s%s, block #%llu during an error recovery operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.cksum.rderr

Severity

NOTICE

Description

This message occurs when the system detects a checksum block media error in an advanced_zoned checksum's (AZCS) RAID group during an error recovery operation. In this case, the data cannot be verified. Data ONTAP® takes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during error recovery.

Parameters

owner (STRING): Owner of the affected aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

blockNum (LONGINT): First physical disk block number containing the error.

LblockNum (LONGINT): Last physical disk block number containing the error.

shelf (STRING): Shelf identifier for the disk shelf on which the disk is located.

bay (STRING): Disk bay within the disk shelf on which the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during an error recovery operation. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during an error recovery operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.lw.block.rewrite

Severity

NOTICE

Description

This message occurs on a RAID stripe with an inconsistent RAID write signature, when the system cannot detect the bad blocks or if the number of blocks with an error are more than the RAID protection level. The system restores the RAID write signature consistency by rewriting one or more disk blocks with the same data, but with the RAID write signature being corrected.

Corrective Action

(None).

Syslog Message

Rewriting %s%s, block #%llu with RAID write signature corrected.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical Disk block number being rewritten.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.lw.block.rewrite.dirty

Severity

INFORMATIONAL

Description

This message occurs on a RAID stripe with an inconsistent RAID write signature that belongs to a dirty parity region, when the system cannot detect the bad blocks or if the number of blocks with an error are more than the RAID protection level. The system restores the RAID write signature consistency by rewriting one or more disk blocks with the same data, but with the RAID write signature being corrected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical Disk block number being rewritten.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.multierr.lw.id.inconsist

Severity

NOTICE

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe while fixing multiple errors on a stripe. Data ONTAP® makes appropriate recovery actions. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature detected on RAID group %s%s, stripe #%llu, during RAID multiple error handling operation.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the raid group.
stripe (LONGINT): Stripe number.

raid.multierr.lw.id.inconsist.dirty

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe while fixing multiple errors on a stripe that belongs to a dirty parity region.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.multierr.unverified.blk

Severity

EMERGENCY

Description

This message occurs when RAID encounters more errors than the RAID level protection allows and RAID cannot recover the block. Any block with a checksum error is marked as unverified.

Corrective Action

Check for the WAFL® error message "wafl.raid.incons.xxx" and follow the corrective actions in that message, or contact NetApp technical support.

Syslog Message

Marking '%s%s', block number [%llu - %llu], volume block number [%llu - %llu], as an unverified block.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): First physical block number containing the error.
LblockNum (LONGINT): Last physical block number containing the error.
volumeBno (LONGINT): First volume block number containing the error.

LvolumeBno (LONGINT): Last volume block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster® configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.mv events

raid.mv.defVol.online

Severity

INFORMATIONAL

Description

This message occurs when aggregates are brought online in a deferred way after mirror votes are retrieved automatically. Mirror votes are retrieved from the replicated database (RDB) in a deferred way when the RDB comes online.

Corrective Action

(None).

Syslog Message

RAID: Aggregate %s was brought online in a deferred way.

Parameters

aggregate_name (STRING): Name of the aggregate that was brought online.

raid.mv.defVol.online.fail

Severity

EMERGENCY

Description

This message occurs when the system fails to bring an aggregate online because mirror vote could not be retrieved from RDB. The reason could be a missing or incorrect mirror vote record or if the previous attempt to retrieve mirror votes failed. Mirror vote retrieval is retried automatically.

Corrective Action

The mirror vote retrieval is retried automatically. If that is not successful, aggregates that are kept offline due to the absence of mirror votes can be brought online by using the (privilege: diagnostic) ""storage aggregate online -forced"" command. Doing so, however, can cause data loss, and should only be attempted with help from NetApp Technical Support. Otherwise, wait until the other plex comes online for the aggregate to come online. For example, if one plex is missing due to disaster at that site, perform Disaster Recovery. Use the ""storage aggregate show"" command to see if plex is missing. If the condition persists, contact NetApp technical support.

Syslog Message

RAID: Could not bring aggregate %s online because %s.

Parameters

aggregate_name (STRING): Name of the aggregate that could not be brought online.
reason (STRING): Reason the aggregate was not brought online.

raid.mv.defVol.online.skip

Severity

NOTICE

Description

This message occurs when the system determines that the mirror vote should not be retrieved at this time, resulting in not bringing the aggregate online. The mirror vote retrieval process is retried automatically.

Corrective Action

If the aggregate is a left-behind aggregate, use the "metrocluster switchback" command to return it to its original owner where it can be brought online. Otherwise, the system will automatically retry the mirror vote retrieval process.

Syslog Message

RAID: Aggregate %s was not brought online because %s.

Parameters

aggregate_name (STRING): Name of the aggregate that was skipped.
reason (STRING): Reason the aggregate was skipped.

raid.mv.transfer.write

Severity

NOTICE

Description

This message occurs when mirror votes are received via HA message and are written to the local mailbox. Extended mirror vote write times can potentially prevent or delay the partner's ability to change ownership of a mirrored aggregate to this node.

Corrective Action

(None).

Syslog Message

The mailbox write for %d received records took %llu milliseconds.

Parameters

records (INT): Number of new records written to the mailbox.
write_time (LONGINT): Time it took to write to the mailbox in milliseconds.

raid.mv.unexpected.local

Severity

INFORMATIONAL

Description

This message occurs when we pull mirror votes from the replicated database (RDB), and there is a stale vote present in the mailbox. The vote from the RDB is treated as the correct vote, and the stale vote is discarded. The stale vote was probably due to not having been cleaned or deleted in the past.

Corrective Action

(None).

Syslog Message

RAID: Found a stale vote for aggregate %s in the mailbox when the mirror vote was pulled from the RDB.

Parameters

aggregate (STRING): Name of the aggregate.

raid.no events

raid.no.parity.aggr

Severity

EMERGENCY

Description

This message occurs periodically to warn the user that the aggregate has no RAID protection and is not safe for storing data.

Corrective Action

Use the "aggregate delete" command to delete the aggregate, if possible.

Syslog Message

Aggregate "%s" does not use any RAID-level data protection; any data is unprotected.

Parameters

aggr (STRING): Name of the aggregate.

raid.ns events

raid.ns.init.removeOwnership

Severity

NOTICE

Description

This message occurs when the system removes ownership of its disks during initialization of a non-shared HA system.

Corrective Action

(None).

Syslog Message

Removed ownership of %d disks.

Parameters

num_disks_reverted (INT): Number of disks whose ownership was removed.
num_disks_not_reverted (INT): Number of disks whose ownership was not removed.
status (STRING): Status of the disk ownership remove operation.

raid.ns.init.skipUnpartition

Severity

NOTICE

Description

This message occurs when the system skips unpartitioning a disk during initialization of a non-shared HA system.

Corrective Action

(None).

Syslog Message

Skipped unpartitioning disk %s(UID: %s) due to %s.

Parameters

disk_name (STRING): Name of the disk.
disk_uid (STRING): Unique identifier of the disk.
reason (STRING): Reason for skipping unpartitioning the disk.

raid.ns.init.unpartition

Severity

NOTICE

Description

This message occurs when the system unpartitions one or more disks during initialization of a non-shared HA system.

Corrective Action

(None).

Syslog Message

Unpartitioned %d disk(s).

Parameters

num_disks_unpartitioned (INT): Number of disks unpartitioned.

raid.nvram events

raid.nvram.bad.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains some bad entries. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains bad entries.

Parameters

(None).

raid.nvram.clean.vol.entry

Severity

NOTICE

Description

This message tracks the status of RAID nonvolatile RAM (NVRAM), which contained entries for a clean shutdown volume. No action is required.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains entries for a clean shutdown volume.

Parameters

(None).

raid.nvram.miss.disk.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains entries for nonexistent disks. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains entries for nonexistent disks.

Parameters

(None).

raid.nvram.miss.group.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains entries for nonexistent RAID groups. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains entries for nonexistent groups.

Parameters

(None).

raid.nvram.miss.plex.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains entries for nonexistent plexes. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains entries for nonexistent plexes.

Parameters

(None).

raid.nvram.miss.vol.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains entries for nonexistent volumes. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains entries for nonexistent volumes.

Parameters

(None).

raid.nvram.stale.entry

Severity

NOTICE

Description

This message occurs when RAID NVRAM contains some stale entries. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

RAID NVRAM contains stale entries.

Parameters

(None).

raid.offline events

raid.offline.busy

Severity

NOTICE

Description

This message occurs when an attempt to offline an aggregate fails due to active operations on the contained volumes.

Corrective Action

(None).

Syslog Message

Active operations in progress on aggregate %s: %s.

Parameters

aggrname (STRING): Aggregate name.
operation (STRING): Operation.

raid.olm events

raid.olm.disk.ownership.change

Severity

NOTICE

Description

This message occurs when a disk which is under online label maintenance(OLM) is prepared for ownership change by administrator forcibly.

Corrective Action

(None).

Syslog Message

Ownership of %s, which is under online label maintenance (OLM) is being changed by administator forcibly.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.partition events

raid.partition.disk

Severity

NOTICE

Description

This message indicates a disk was successfully partitioned.

Corrective Action

(None).

Syslog Message

Disk partition successful on %s, partitions created %u, partition sizes specified %u, partition spec summary%s.

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.

partition_count (INT): The number of partitions created.

partition_specs (INT): The number of partitions created with the size specified.

partition_spec_summary (STRING): A summary of the partition sizes specified by partition specifications. The form is [index]=size [index]=size .. Where index is a partition index, and size capacity of the partition specified in disk blocks.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the disk vendor.

model (STRING): Model string of the disk.

firmware_revision (STRING): Disk firmware revision number.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.partition.disk.fail

Severity

NOTICE

Description

This message occurs when an attempt to partition a disk fails. The error and error_info fields indicate the reason why the attempt failed.

Corrective Action

(None).

Syslog Message

Disk partition failed on %s, error %s, additional error info (%s).

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.

error (STRING): String name for the error.

error_info (STRING): Additional error information.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the disk vendor.

model (STRING): Model string of the disk.

firmware_revision (STRING): Disk firmware revision number.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.plex events

raid.plex.faultIsolation.reminder

Severity

ERROR

Description

This message occurs when disks in a plex do not have the same hardware-based pool.

Corrective Action

a) Identify the problem aggregate from the system logs. b) Determine how this occurred: possible cause is a wiring problem. c) Based on the information you gather, determine how to correct the issue. For example, use the "storage disk replace" command to copy the disk belonging to the wrong pool to a disk belonging to the right pool. d) If you need assistance, contact NetApp technical support.

Syslog Message

Plex %s has disks from mixed pools: %s

Parameters

plex (STRING): Name of the plex.
num_disks (STRING): Number of disks of the plex in other pools.

raid.plex.vbn.error

Severity

NOTICE

Description

This message occurs when the system attempts to start up a plex and discovers that part of its Virtual Block Number(VBN) range is missing.

Corrective Action

(None).

Syslog Message

%s %s%s: Plex object %d is missing a VBN segment starting at %llu.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
plexId (INT): Identifier of the plex.
vbn (LONGINT): Starting VBN that is missing.

raid.pmdopt events

raid.pmdOpt.misconfigured

Severity

ERROR

Description

The option raid.panic.missing.disks was set to panic and halt the appliance when a hardware error prevents access to multiple file system disks. However, the regular value of that option is not accessible during boot. Therefore, the option value is stored in the firmware environment variable halt-missing-disks, if the appliance has such capability. This event occurs hourly as long as the two values are not equal. Here are some examples of possible undesirable behavior caused by inconsistency between the two values: If halt-missing-disks is 0 and option raid.panic.missing.disks is 2, and if a failure causes the appliance to lose access to two or more file system disks, the appliance panics but does not halt. Multiple reconstructions might start after reboot, and that is what would have been prevented by setting the option. If halt-missing-disks is 2 and option raid.panic.missing.disks is 0, the appliance does not panic if it loses access to multiple file system disks. However, it might halt if multiple filesystem disks are missing during boot. If one value is 2 and the other is 3, the appliance panics and halts as expected only if a failure prevents access to three or more file system disks.

Corrective Action

Try resetting the option raid.panic.missing.disks to the desired value.

Syslog Message

The option raid.panic.missing.disks is set to %d, but during boot it will have value %d. Reset the option.

Parameters

value (INT): Value of the option raid.panic.missing.disks.
boot_value (INT): Value of the option raid.panic.missing.disks during boot that is stored in the firmware environment variable halt-missing-disks.

raid.pmdOpt.nonpersistent

Severity

NOTICE

Description

This message occurs when an attempt is made to set the "raid.panic.missing.disks" option to panic and halt the system when a hardware error prevents access to multiple file system disks. However, the system cannot store the option persistently to be accessible during boot, and the option was not set to the new value. That happens on systems that do not have the capability to store environment variables in firmware. The "raid.panic.missing.disks" option cannot be used on such systems.

Corrective Action

(None).

Syslog Message

Setting the "raid.panic.missing.disks" option to %d failed because it could not be stored in the firmware environment variable.

Parameters

value (INT): Value of the "raid.panic.missing.disks" option.

raid.pmdOpt.set

Severity

ERROR

Description

The option raid.panic.missing.disks has been set to panic and halt the appliance when a hardware error prevents access to multiple file system disks. This option might be useful to prevent multiple unnecessary reconstructions if such errors occur, especially on NearStore® appliances. It is not recommended that you use this option on filer appliances. This option is always disabled during takeover. When using this option, you must have a monitoring system that alerts an administrator if the appliance halts. The Remote LAN Module (RLM) can provide such alerts if it is present in the appliance and properly configured. Otherwise, you need an external monitoring system.

Corrective Action

Verify that the setting is correct. Verify that RLM or an external monitoring system can alert the administrator when the appliance halts. To disable this behavior, set option raid.panic.missing.disks to 0.

Syslog Message

The option raid.panic.missing.disks is set to panic and halt the appliance when an error affects %d or more file system disks. RLM %s present.

Parameters

value (INT): Value of the option raid.panic.missing.disks.
rlm_present_string (STRING): String to indicate whether RLM is present: "is" or "is not".
rlm_present (INT): Indicates whether RLM is present in the system: 1 if RLM is present, 0 if it is not present.

raid.pmdOpt.singleDisk

Severity

ERROR

Description

This message occurs when the option 'raid.panic.missing.disks' is set to 1, which causes the system to panic and halt on any disk failure. You should set that option to 1 only when directed by NetApp technical support for handling a specific condition, and you should change that value from 1 as soon as the condition is rectified. This event is issued periodically as a reminder to change the option as soon as possible.

Corrective Action

Change the option 'raid.panic.missing.disks' to a more appropriate value (0, or 2 or higher) when conditions to keep it at 1 no longer apply.

Syslog Message

The option 'raid.panic.missing.disks' is set to 1, which causes the system to panic and halt on any disk failure. Change the option as soon as possible.

Parameters

(None).

raid.poolsort events

raid.poolsort.disks_per_channel

Severity

INFORMATIONAL

Description

This message occurs when the system detects an invalid number of disks on a single channel.

Corrective Action

(None).

Syslog Message

(None).

Parameters

channel_name (STRING): Name of the channel containing too many disks.
num_disks (INT): Number of disks connected to this channel.
max_disks (INT): Maximum number of disks expected to be connected to this channel.

raid.poolsort.disks_per_shelf

Severity

ALERT

Description

This message occurs when the system detects too many disks reporting the same disk shelf ID. This usually indicates that multiple shelves on one channel are using the same shelf ID.

Corrective Action

Change the conflicting shelf IDs to unique values using the supported procedures for the affected shelves.

Syslog Message

Shelf ID %d on channel %s is reporting too many disks.

Parameters

shelf_id (INT): Shelf ID being reported by the disks.
channel_name (STRING): Channel the disks are connected to.
num_disks (INT): Number of disks reporting this shelf ID.
max_disks (INT): Maximum number of disks expected to report this shelf ID.

raid.poolsort.num_channels

Severity

INFORMATIONAL

Description

This message occurs when the system detects an invalid number of channels.

Corrective Action

(None).

Syslog Message

(None).

Parameters

num_channels (INT): Number of channels detected.
max_channels (INT): Maximum number of channels allowed on the system.

raid.poolsort.shelves_per_channel

Severity

INFORMATIONAL

Description

This message occurs when the system detects an invalid number of disk shelves on a single channel.

Corrective Action

(None).

Syslog Message

(None).

Parameters

channel_name (STRING): Channel containing too many shelves.
num_shelves (INT): Number of shelves connected to this channel.
max_shelves (INT): Maximum number of shelves expected to be connected to this channel.

raid.preserve events

raid.preserve.nvram

Severity

INFORMATIONAL

Description

During RAID replay of NVRAM, entries associated with a non-existent (offline or missing) aggregate were discovered. Since the volume is not available to replay those NVRAM entries, it will be saved in a system file on the root volume and will be replayed when the aggregate becomes available. This event is issued if the system is able to successfully save the NVRAM RAID entries associated with a non-existent aggregate.

Corrective Action

(None).

Syslog Message

RAID replay detected NVRAM entries for a non-existent aggregate having raidtreeID %s. %d checksum, %d stripe and %d pzero entries were successfully preserved.

Parameters

raidtreeID (STRING): RAIDtree identifier of the aggregate.
nchecksum_saved (INT): Identifies the number of checksum NVRAM entries preserved
nstripe_saved (INT): Identifies the number of stripe NVRAM entries preserved
nblkbuf_saved (INT): Identifies the number of pzero NVRAM entries preserved

raid.preserve.nvram.issue

Severity

INFORMATIONAL

Description

This event occurs when system finds an issue during an nvfile save or nvfile replay operation. During RAID replay of NVRAM, entries associated with a nonexistent (offline or missing) aggregate are discovered. Because the volume is unavailable to replay those NVRAM entries, it is saved in a system file on the root volume and is replayed when the aggregate becomes available.

Corrective Action

(None).

Syslog Message

%s %s

Parameters

reason (STRING): Description of the issue during nvfile save or replay phase.
identifier (STRING): Description of raidtree identifier or filen name

raid.quiesce events

raid.quiesce.diskProcessTime

Severity

INFORMATIONAL

Description

This message occurs during the ownership change of a disk to indicate the time taken by RAID to quiesce disk active I/O's.

Corrective Action

(None).

Syslog Message

(None).

Parameters

process (STRING): Description of the process.
disk (STRING): Name of the disk.
time (LONGINT): Time taken by the specified process.

raid.read events

raid.read.cksum.blk.err

Deprecated

Deprecated as of version 9.9.1 because this EMS does not appropriately describe the checksum block error.

Severity

NOTICE

Description

This message occurs when the system detects a checksum block media error in an advanced zoned checksums(AZCS) RAID group during a read operation. Data ONTAP® takes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during RAID group I/O.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.

raid.read.cksum.blk.notAvail

Severity

NOTICE

Description

This message occurs when the system detects a checksum block media error in an advanced zoned checksums(AZCS) RAID group during a read operation. As a result checksum information is not available. Data ONTAP® takes appropriate recovery actions to reconstruct the block. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block is not available on %s%s for blocks [#%llu - #%llu] during RAID group I/O.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.

raid.read.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during a read operation. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during a read operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.

raid.read.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during a read operation. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during a read operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number containing the error.

raid.read.cksum.err

Severity

NOTICE

Description

This message occurs when the system detects a checksum error during a read operation. The checksum computed does not match the stored checksum, indicating that the block is corrupted. Data ONTAP®

makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum error on %s%s, block #%llu.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical block number containing the error.

raid.read.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during a read operation. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during a read operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical disk block number containing the error.

raid.read.media.err

Severity

NOTICE

Description

This message occurs when rg i/o detects a single-disk medium error

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu

Parameters

> **owner** (STRING): Owner of the affected aggregate.
> **disk_info** (STRING): Formatted information of disk object that contains the error.
> **blockNum** (LONGINT): The physical block number containing the error.
> **shelf** (STRING): Shelf identifier where the disk is located
> **bay** (STRING): Disk bay within the shelf where disk is located
> **vendor** (STRING): Name of the vendor of the disk
> **model** (STRING): Model string of the disk drive
> **firmware_revision** (STRING): Firmware revision number of the disk
> **serialno** (STRING): Serial number of the disk
> **disk_type** (INT): Type of disk drive
> **disk_rpm** (STRING): Rotational speed of disk in RPM
> **carrier** (STRING): Unique ID of the carrier in which the disk is installed.
> **site** (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.read.media.recommend.reassign.err

Severity

> NOTICE

Description

> This message occurs when rg i/o detects a single-disk recommend reassign error

Corrective Action

> (None).

Syslog Message

> Block recommended for reassignment on %s%s, block #%llu

Parameters

> **owner** (STRING): Owner of the affected aggregate.
> **disk_info** (STRING): Formatted information of the disk object that contains the error.
> **blockNum** (LONGINT): The physical block number containing the error.
> **shelf** (STRING): Shelf identifier where the disk is located
> **bay** (STRING): Disk bay within the shelf where disk is located
> **vendor** (STRING): Name of the vendor of the disk
> **model** (STRING): Model string of the disk drive
> **firmware_revision** (STRING): Firmware revision number of the disk
> **serialno** (STRING): Serial number of the disk
> **disk_type** (INT): Type of disk drive
> **disk_rpm** (STRING): Rotational speed of disk in RPM
> **carrier** (STRING): Unique ID of the carrier in which the disk is installed.
> **site** (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.readerr events

raid.readerr.lw.data.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature, during a RAID error handling operation to log the on-disk RAID checksum information of the data block on the corresponding RAID stripe.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the data disk.
dbn (LONGINT): Disk block number of the block being reported.
disk_pos (INT): Position of this data disk in the corresponding RAID group. The generation count of this data block on the parity bitmap resides at this position.
stripe_id (INTHEX): Stripe ID field of the RAID write signature on the data block.
gen_cnt (INTHEX): Generation count field of the RAID write signature on the data block.
comp_cksum (INTHEX): Computed RAID checksum of the disk block.
sto_vbn (LONGINT): Volume block number stored in the checksum entry.
wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.lw.dparity.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature, during a RAID error handling operation to log the on-disk RAID checksum information of the diag parity block on the corresponding RAID stripe.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the diag parity disk.
dbn (LONGINT): Disk block number of the block being reported.
stripe_id (INTHEX): Stripe ID field of the RAID write signature on the diag parity block.
gen_cnt1 (INTHEX): Generation count bitmap field of the RAID write signature on the diag parity block, for data blocks 0-15.
gen_cnt2 (INTHEX): Generation count bitmap field of the RAID write signature on the diag parity block, for data blocks 16-27.
comp_cksum (INTHEX): Computed RAID checksum of the disk block.
wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.lw.id.inconsist

Severity

NOTICE

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe, during a RAID error handling operation. Data ONTAP® makes appropriate recovery actions. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature detected on RAID group %s%s, stripe #%llu, during RAID error handling operation

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.readerr.lw.id.inconsist.dirty

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe that belongs to a dirty parity region, during a RAID error handling operation.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.readerr.lw.parity.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature, during a RAID error handling operation to log the on-disk RAID checksum information of the row parity block on the corresponding RAID stripe.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the row parity disk.
dbn (LONGINT): Disk block number of the block being reported.
stripe_id (INTHEX): Stripe ID field of the RAID write signature on the row parity block.
gen_cnt1 (INTHEX): Generation count bitmap field of the RAID write signature on the row parity block, for data blocks 0-15.
gen_cnt2 (INTHEX): Generation count bitmap field of the RAID write signature on the row parity block, for data blocks 16-27.
comp_cksum (INTHEX): Computed RAID checksum of the disk block.
wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.lw.reconsBadBlk.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system encounters a RAID stripe with an inconsistent RAID write signature that might indicate a bad data block somewhere on the stripe. Based on this block's RAID signature, the system suspects this block as containing bad data and reconstructs the the block for a data integrity check. This message logs the RAID checksum information from the reconstructed block.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the data disk.
dbn (LONGINT): Disk block number of the block being reported.
comp_cksum (INTHEX): Computed RAID checksum of the reconstructed block.
wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
iteration (INT): Parity consistency of this RAID stripe is restored by performing a data integrity check on one or two stripe blocks at a time in an iteration. This variable prints the current iteration.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.lw.reconsGoodBlk.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system encounters a RAID stripe with an inconsistent RAID write signature that might indicate a bad data block somewhere on the stripe. Based on this block's RAID signature, the system identifies this block as containing good data and reconstructs the block to perform a data integrity check on a suspected bad data block in the stripe. This message logs the RAID checksum information from the reconstructed good block.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the data disk.
dbn (LONGINT): Disk block number of the block being reported.
comp_cksum (INTHEX): Computed RAID checksum of the reconstructed block.

wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
iteration (INT): Parity consistency of this RAID stripe is restored by performing a data integrity check on one or two stripe blocks at a time in an iteration. This variable prints the current iteration.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.lw.tparity.ckinfo

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature, during a RAID error handling operation to log the on-disk RAID checksum information of the tparity block on the corresponding RAID stripe.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_name (STRING): Name of the tparity disk.
dbn (LONGINT): Disk block number of the block being reported.
stripe_id (INTHEX): Stripe ID field of the RAID write signature on the tparity block.
gen_cnt1 (INTHEX): Generation count bitmap field of the RAID write signature on the tparity block, for data blocks 0-15.
gen_cnt2 (INTHEX): Generation count bitmap field of the RAID write signature on the tparity block, for data blocks 16-27.
comp_cksum (INTHEX): Computed RAID checksum of the disk block.
wafl_cxt0 (INTHEX): Bytes 0-3 of WAFL® context information in the checksum.
wafl_cxt1 (INTHEX): Bytes 4-7 of WAFL context information in the checksum.
wafl_cxt2 (INTHEX): Bytes 8-11 of WAFL context information in the checksum.
wafl_cxt3 (INTHEX): Bytes 12-15 of WAFL context information in the checksum.
wafl_cxt4 (INTHEX): Bytes 16-19 of WAFL context information in the checksum.
wafl_cxt5 (INTHEX): Bytes 20-23 of WAFL context information in the checksum.
wafl_cxt6 (INTHEX): Bytes 24-27 of WAFL context information in the checksum.
wafl_cxt7 (INTHEX): Bytes 28-31 of WAFL context information in the checksum.
disk_serialno (STRING): Serial number of the disk drive.

raid.readerr.recovered.file

Severity

NOTICE

Description

This event is issued when a lost write block has been recovered from parity and other remaining data disks.

Corrective Action

(None).

Syslog Message

Recovered the bad disk block %llu on %s%s, %s inode number %d, snapid %d, treeid %d, file block %llu level %d.

Parameters

blockNum (LONGINT): The disk block number
owner (STRING): String indicating the owner of the affected volume.
disk_info (STRING): Formatted information of the disk
ino_type (STRING): The inode type
fileid (INT): The file identifier
snapid (INT): The snapshot identifier
treeid (INT): The snapshot identifier
fileBlockNum (LONGINT): The block number in the file
level (INT): The level

raid.recons events

raid.recons.lw.id.inconsist

Severity

NOTICE

Description

This message occurs during a RAID reconstruction operation, when the system detects an inconsistent RAID write signature on a RAID stripe. Data ONTAP® makes appropriate recovery actions. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature detected on RAID group %s%s, stripe #%llu, during reconstruction.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the raid group.
stripe (LONGINT): Stripe number.

raid.recons.lw.id.inconsist.dirty

Severity

INFORMATIONAL

Description

This message occurs during a RAID reconstruction operation, when the system detects an inconsistent RAID write signature on a RAID stripe that belongs to a dirty parity region.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.recons.MP

Severity

NOTICE

Description

This message occurs when a user enables or disables multiprocessing for reconstruction. It also is emitted when reconstruction actually starts and multiprocessing is enabled.

Corrective Action

(None).

Syslog Message

RAID reconstruct multiprocessing is %s (raid.reconstruct.threads: %d rows, RAID I/O threads: %d).

Parameters

status (STRING): Whether multiprocessing is enabled or disabled
rows (INT): Number of reconstruct rows ("raid.reconstruct.threads") in use per RAID I/O thread.
raidio_nthreads (INT): Number of RAID I/O threads in use.

raid.reparity events

raid.reparity.lw.id.inconsist

Severity

INFORMATIONAL

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe, during a RAID reparity operation.

Corrective Action

(None).

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.replay events

raid.replay.nvfile.done

Severity

INFORMATIONAL

Description

This event is issued when an aggregate becomes available and system successfully replayed the preserved NVRAM entries associated with that aggregate. The NVRAM entries replayed are saved in a system file on the root volume.

Corrective Action

(None).

Syslog Message

Successfully replayed %d checksum, %d stripe %d pzero block entries from preserved NVRAM file for %s %s%s having raidtreeID %s.

Parameters

nchecksum_replayed (INT): Identifies the number of checksum NVRAM entries replayed
nstripe_replayed (INT): Identifies the number of stripe NVRAM entries replayed
nblkbuf_replayed (INT): Identifies the number of pzero entries replayed
vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
raidtreeID (STRING): RAIDtree identifier of the aggregate.

raid.replay.nvfile.start

Severity

INFORMATIONAL

Description

This event is issued while starting the raid nvfile replay for an aggregate. When a aggregate becomes available and system determines that there are relevant nvram entries saved in a system file for such aggregate, those saved nvram entries must be replayed.

Corrective Action

(None).

Syslog Message

Starting raid nvfile replay for %s %s%s having raidtreeID %s stored on %s host root volume.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
raidtreeID (STRING): Raidtree identifier of the aggregate.
host (STRING): The preserved nvfile being replayed for this aggregate was found on the host root volume.

raid.replay.partner.nvram

Severity

NOTICE

Description

This message occurs when RAID replays partner nonvolatile RAM (NVRAM).

Corrective Action

(None).

Syslog Message

Replaying partner NVRAM.

Parameters

(None).

raid.rg events

raid.rg.bigio.fatal

Severity

ALERT

Description

This message occurs when a RAID group background long running I/O encounters an error that is fatal to the RAID group and the aggregate (cannot be fixed even by a mirror read from the other plex, if it exists).

Corrective Action

Contact technical support to bring this aggregate online.

Syslog Message

%s: long-running raid I/O operation experienced fatal multi-disk error.

Parameters

rg (STRING): Name of the RAID group object that failed.

raid.rg.context.clear

Severity

NOTICE

Description

This message occurs when the context flag is cleared from the RAID group, and therefore from the parent aggregate, as part of context parity scrub testing. This event is only logged during internal testing; it is not seen on customer systems.

Corrective Action

(None).

Syslog Message

Scrub testing: %s%s: group parity context is now reset.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group whose context flag is cleared.

raid.rg.degraded

Severity

NOTICE

Description

This message occurs when a RAID group becomes degraded, double degraded, or triple degraded.

Corrective Action

Reconstruction will occur unless there is no matching spare disk or the number of failed disks is greater than the parity reconstruction level of the RAID group (1 for raid4, 2 for raid_dp and 3 for raid_tec). If reconstruction does not occur, then follow the following steps: 1. Identify the failed disk or disks from the system logs and determine the reason for the failure. 2. Replace the faulty disks.

Syslog Message

%s: Raid group %s is degraded

Parameters

owner (STRING): Owner of the RAID group.
name (STRING): Relative path name of the RAID group.
aggr_UUID (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.die_recons.aborted

Severity

NOTICE

Description

This message occurs when die reconstruction has been aborted on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: die reconstruction aborted at disk %s block %llu after %s

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is aborted die reconstruction.
disk (STRING): Name of the disk object for which die reconstruction aborted.
blockNum (LONGINT): The physical block number die reconstruction stopped
duration (STRING): The amount of time the die reconstruction required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.die_recons.cant.start

Severity

NOTICE

Description

This message occurs when the raid group has a disk with failed die but the die reconstruction cannot be started.

Corrective Action

(None).

Syslog Message

%s%s: unable to start die reconstruction for %s: %s.

Parameters

owner (STRING): Owner of the raid group
rg (STRING): Name of the raid group
disk (STRING): Name of the disk which has a failed die
reason (STRING): Reason the die reconstruction cannot start

raid.rg.die_recons.deferred

Severity

NOTICE

Description

This message occurs when die reconstruction has been deferred on a specific raid group due to inadequate incore resources.

Corrective Action

(None).

Syslog Message

%s%s: die reconstruction deferred for %s (%s)

Parameters

owner (STRING): Owner of the raid group
rg (STRING): Name of the raid group object that is unable to reconstruct die
disk (STRING): Name of the disk object for which die reconstruction aborted.

> **reason** (STRING): A text reason code

raid.rg.die_recons.done

Severity

> NOTICE

Description

> This message occurs when die reconstruction has been completed on a specific raid group.

Corrective Action

> (None).

Syslog Message

> %s%s: die reconstruction completed for %s in %s.

Parameters

> **disk_info** (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.
> **owner** (STRING): Owner of the raid group.
> **disk** (STRING): Name of the disk object for which die reconstruction completed.
> **duration** (STRING): The amount of time the die reconstruction required.
> **shelf** (STRING): Shelf identifier where the disk is located
> **bay** (STRING): Disk bay within the shelf where disk is located
> **vendor** (STRING): Name of the vendor of the disk
> **model** (STRING): Model string of the disk drive
> **firmware_revision** (STRING): Firmware revision number of the disk
> **serialno** (STRING): Serial number of the disk
> **disk_type** (INT): Type of disk drive
> **disk_rpm** (STRING): Rotational speed of disk in RPM
> **carrier** (STRING): Unique ID of the carrier in which the disk is installed.
> **site** (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
> **aggregate_uuid** (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.die_recons.start

Severity

> NOTICE

Description

> This message occurs when die reconstruction has been initiated on a specific raid group.

Corrective Action

> (None).

Syslog Message

> %s%s: starting die reconstruction on disk %s

Parameters

> **disk_info** (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.

owner (STRING): Owner of the raid group.
disk (STRING): Name of the disk object where die reconstruction happens
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.disk.reconstruction.failed

Severity
NOTICE

Description
This event is issued when a disk has failed reconstruction.

Corrective Action
(None).

Syslog Message
%s%s: reconstruction failed for a disk in the raidgroup

Parameters
owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object containing the reconstructing disk

raid.rg.diskcopy.aborted

Severity
NOTICE

Description
This message occurs when RAID disk copy is aborted. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action
(None).

Syslog Message
%s%s: disk copy from %s to %s aborted at disk block %llu after %s. Reason: %s.

Parameters
owner (STRING): Owner of the RAID group.
rg (STRING): RAID group name.
source (STRING): Name of the source disk.
target (STRING): Name of the target disk.

blockNum (LONGINT): Physical block number where the disk copy stopped.
duration (STRING): Amount of time the disk copy lasted.
reason (STRING): Reason for aborting the disk copy operation
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.diskcopy.cant.start

Severity

NOTICE

Description

This message occurs when RAID disk copy cannot be started. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s%s: unable to start disk copy for %s: %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
disk (STRING): Name of the disk to be copied.
reason (STRING): Reason the disk copy cannot start.

raid.rg.diskcopy.deferred

Severity

NOTICE

Description

This message occurs when a RAID disk copy is deferred due to inadequate incore resources. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s%s: disk copy for %s deferred (%s).

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
disk (STRING): Name of the disk to be copied.
reason (STRING): Reason code.

raid.rg.diskcopy.deferred.ok

Severity

INFORMATIONAL

Description

This message occurs when a previously deferred RAID disk copy is now ready to proceed.

Corrective Action

(None).

Syslog Message

%s%s: disk copy for %s previously deferred, now proceeding.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
disk (STRING): Name of the disk to be copied.

raid.rg.diskcopy.done

Severity

INFORMATIONAL

Description

This message occurs when RAID disk copy is completed.

Corrective Action

(None).

Syslog Message

%s%s: disk copy from %s (S/N [%s]) to %s (S/N [%s]) was completed in %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): RAID group name.
source (STRING): Name of the source disk.
source_serialno (STRING): Serial number of the source disk.
target (STRING): Name of the target disk.
target_serialno (STRING): Serial number of the target disk.
duration (STRING): Amount of time it took to complete the disk copy operation.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.diskcopy.failed

Severity

NOTICE

Description

This message occurs when RAID disk copy to the intended target disk cannot be initiated. This type of disk copy is used after new firmware download, to return the disk to its place in a RAID group. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s%s: unable to start disk copy from %s to %s: %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
source (STRING): Name of the disk to be copied.
target (STRING): Name of the target disk.
reason (STRING): Reason the disk copy cannot start.

raid.rg.diskcopy.mismatch

Severity

ERROR

Description

This message occurs when there is no disk for Rapid RAID Recovery that matches all parameters of an ideal replacement in the RAID group. Data ONTAP® selected a disk with a different interface speed or RPM, or from the opposite spare pool in a SyncMirror® configuration.

Corrective Action

Wait for copying to finish. Install an appropriate spare disk. Fail the mismatched disk by using the 'disk fail' command. It will be copied to the new spare disk. After copying is done, use the 'disk unfail' command to unfail the mismatched disk and convert it to a spare.

Syslog Message

%s%s: matching disk not available to copy disk %s; using disk %s %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
source (STRING): Name of the source disk.
target (STRING): Name of the target disk.
detail (STRING): Description of disk mismatch; one or more of: from the opposite spare pool, with different RPM.

raid.rg.diskcopy.recom.fail

Severity

ERROR

Description

This message occurs when an unhealthy disk drive being copied to a replacement disk cannot continue the copy, and must be recommended for failure before the copy is completed. The system will reconstruct the data from parity data.

Corrective Action

(None).

Syslog Message

%s recommend failed after exceeding disk copy error threshold.

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
error_pct (INT): Number of bad blocks on the disk, described as percentage of the total size of the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.diskcopy.resume

Severity

INFORMATIONAL

Description

This message occurs when RAID disk copy is resumed.

Corrective Action

(None).

Syslog Message

%s%s: resuming disk copy from %s to %s (disk block %llu, %d%% complete)

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): RAID group name.
source (STRING): Name of the source disk.
target (STRING): Name of the target disk.
blockNum (LONGINT): Physical block number from which disk copy is continuing.
percent (INT): Percentage of disk copy already complete.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.diskcopy.start

Severity

NOTICE

Description

This message occurs when RAID disk copy is initiated.

Corrective Action

(None).

Syslog Message

%s%s: starting disk copy from %s (S/N [%s]) to %s (S/N [%s]). Reason: %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): RAID group name.
source (STRING): Name of the source disk.
source_serialno (STRING): Serial number of the source disk.
target (STRING): Name of the target disk.
target_serialno (STRING): Serial number of the target disk.
reason (STRING): Reason for starting disk copy.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.drecons

Severity

NOTICE

Description

This message occurs when double reconstruction is initiated after the failure of two disks in RAID-DP or RAID-TEC raid group.

Corrective Action

(None).

Syslog Message

%s%s: starting double reconstruction, using disks %s and %s

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is initiating double reconstruction.
disk (STRING): Name of the disk object that is the first reconstruction target.
disk1 (STRING): Name of the disk object that is the second reconstruction target.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.intl.diskcopy.done

Severity

NOTICE

Description

This message occurs when intelligent disk copy has been completed.

Corrective Action

(None).

Syslog Message

%s%s: intelligent disk copy completed for %s. Used DBN %llu copy done DBN %llu disk size %llu

Parameters

owner (STRING): Owner of the raid group.

rg (STRING): Name of the raid group object that is completed intelligent disk copy.
disk (STRING): Name of the disk object for which intelligent reconstruction completed.
used_dbn (LONGINT): Maximum used Disk block number.
copy_done_dbn (LONGINT): Disk block number when intelligent disk copy was done.
disk_size (LONGINT): Filesystem size of the disk.

raid.rg.intl.recons.done

Severity

NOTICE

Description

This message occurs when intelligent reconstruction has been completed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: intelligent reconstruction completed for %s. Used DBN %llu reconstruction done DBN %llu disk size %llu

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is completed intelligent reconstruction.
disk (STRING): Name of the disk object for which intelligent reconstruction completed.
used_dbn (LONGINT): Maximum used Disk block number.
recons_done_dbn (LONGINT): Disk block number when intelligent reconstruction was done.
disk_size (LONGINT): Filesystem size of the disk.

raid.rg.lw.prot.disabled

Severity

NOTICE

Description

This message occurs when the lost-write protection for RAID I/O is disabled on the RAID group.

Corrective Action

(None).

Syslog Message

%s%s: group lost-write protection for RAID I/O is now disabled (%s)

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group on which lost-write protection is disabled.
reason (STRING): A character string indicating the reason for disabling the lost-write protection for RAID I/O.

raid.rg.media_scrub.cksum_blk.err.bypass

Severity

NOTICE

Description

For a zoned checksum aggregate this event is issued when background media scrub bypasses a media error on a checksum block.

Corrective Action

(None).

Syslog Message

Media error on checksum block bypassed for %s%s, block #%llu

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.media_scrub.done

Severity

NOTICE

Description

This event is issued when media scrub has completed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: media scrub completed in %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that has completed media scrub
duration (STRING): The amount of time the media scrub required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.media_scrub.media.err

Severity

NOTICE

Description

This event is issued when a media_scrub i/o detects a medium error

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu during media_scrub

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): The name of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.media_scrub.media.errs

Severity

NOTICE

Description

This message occurs when background media scrubbing detects a multi-disk media error on a stripe. Data ONTAP® will take appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Multiple checksum block read error on %s%s for blocks [#%llu - #%llu] during media_scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group object that contains the multi-disk media error.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.

raid.rg.media_scrub.media.recommend.reassign.err

Severity

NOTICE

Description

This event is issued when a background media scrub i/o detects a recommend reassign error

Corrective Action

(None).

Syslog Message

Block recommended for reassignment on %s%s, block #%llu during media_scrub

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.media_scrub.resume

Severity

NOTICE

Description

This event is issued when media_scrub resumes on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: resuming media scrub at stripe %llu (%d%% complete)

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is resuming media_scrub
stripe (LONGINT): resuming at stripe.
percentage (INT): (None).
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.media_scrub.rewrite.chunk

Severity

INFORMATIONAL

Description

This message occurs when background media scrub rewrites a chunk of blocks for ATA drives.

Corrective Action

(None).

Syslog Message

media_scrub rewriting chunk on %s%s, start block #%llu, count #%u.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM , and carrier serial number.
blockNum (LONGINT): Physical block number at which the chunk starts.
count (INT): Number of blocks being rewritten.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.media_scrub.start

Severity

NOTICE

Description

This event is issued when media_scrub has been initiated on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: start media scrub

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is initiating media_scrub
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.media_scrub.stopped

Severity

NOTICE

Description

This event is issued when media scrub is stopped on specified raid group.

Corrective Action

(None).

Syslog Message

%s%s: media scrub stopped at stripe %llu after %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object for which media scrub was stopped
stripe (LONGINT): stopped at stripe.
duration (STRING): The amount of time the media scrub has taken.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.media_scrub.summary.media

Severity

NOTICE

Description

This event is generated as a summary report for errors found during a media scrub.

Corrective Action

(None).

Syslog Message

(None).

Parameters

errors (INT): The total number of media errors found
rg (STRING): The name of the raid group
current (STRING): The current status

raid.rg.media_scrub.suspended

Severity

NOTICE

Description

This event is issued when media scrub is suspended on specified raid group.

Corrective Action

(None).

Syslog Message

%s%s: media scrub suspended at stripe %llu after %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object for which media scrub is suspended
stripe (LONGINT): suspended at stripe.
duration (STRING): The amount of time the media scrub has taken.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.mirrorreaderr.fatal

Severity

NOTICE

Description

This message occurs when the RAID mirror read error handling encounters an I/O error on the RAID group in the source plex. This is ultimately fatal error to the aggregate. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s: RAID mirror read error handling experienced fatal multi-disk error; failing RAID group.

Parameters

rg (STRING): Name of the RAIDgroup that failed.

raid.rg.mirrorreaderr.nonfatal

Severity

NOTICE

Description

This message occurs when the RAID mirror read error handling encounters an I/O error on a RAID group during a scrub, or lost write recovery operation. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s: RAID mirror read error handling experienced multi-disk error; continuing.

Parameters

rg (STRING): Name of the RAID group that has a double error.

raid.rg.normal

Severity

NOTICE

Description

This message occurs when a RAID group returns to normal after it was in one of the degraded states, after a resynchronization, or after it was in failed state.

Corrective Action

(None).

Syslog Message

%s: raid group %s is in normal state.

Parameters

owner (STRING): Owner of the raid group.
name (STRING): Relative path name of the raid group.
aggr_UUID (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.readerr.bad.file.block

Severity

EMERGENCY

Description

This message occurs when a reconstructed file block is found out to be marked bad because it could not be recovered correctly earlier.

Corrective Action

Contact NetApp technical support.

Syslog Message

Reading bad block on %s %s%s, %s inode number %d, snapid %d, file block %llu, level %d.

Parameters

vol_type (STRING): String indicating whether the file is contained in a flexible volume or aggregate.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the volume or aggregate
ino_type (STRING): The inode type
fileid (INT): File identifier
snapid (INT): Snapshot identifier
fileBlockNum (LONGINT): Block number in the file
level (INT): Inode indirect pointer level

raid.rg.readerr.block.fail

Severity

ERROR

Description

This event is issued when a missing block could not be properly recovered because a read error that was detected on another disk in the group was bypassed.

Corrective Action

Ensure wafliron successfully completes. Wafliron will preserve the filesystem consistency.

Syslog Message

Block #%llu cannot be properly recovered on %s%s

Parameters

blockNum (LONGINT): The physical block number that could not be recovered
owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk to which the block belongs
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.recalc

Severity

NOTICE

Description

This event is issued when a previously detected bad block is recalculated.

Corrective Action

(None).

Syslog Message

Recalculated bad block on %s%s, block #%llu

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): The name of the disk
blockNum (LONGINT): The disk block number
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.recommend.failure

Severity

ERROR

Description

This message occurs when a detected bad block is repeatly recalculated and written back to disk.

Corrective Action

Wait for the event message raid.disk.unload.done or raid.carrier.remove to be issued and then replace the carrier containing the failed disk. If the disk is contained in a single-disk carrier, raid.disk.unload.done will be issued immediately. Otherwise, wait for raid.carrier.remove which indicates the carrier has been fully prepared for removal.

Syslog Message

Disk failure due to repeated read errors on %s%s, block #%llu

Parameters

owner (STRING): String indicating the owner of the affected volume.
disk_info (STRING): The name of the disk.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.cksum.computed

Severity

NOTICE

Description

This message occurs when a previously detected bad block is repaired and the checksum of that recalculated block matches the computed checksum.

Corrective Action

(None).

Syslog Message

Recalc %s%s, block #%llu matches computed checksum

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk
blockNum (LONGINT): The disk block number

shelf (STRING): Shelf identifier where the disk is located

bay (STRING): Disk bay within the shelf where disk is located

vendor (STRING): Name of the vendor of the disk

model (STRING): Model string of the disk drive

firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.cksum.error

Severity

NOTICE

Description

This message occurs when a previously detected bad block is repaired and the checksum of that recalculated block does not match the stored and computed checksums.

Corrective Action

(None).

Syslog Message

Data recalculated from parity on %s%s; block #%llu does not match the stored and computed checksums.

Parameters

owner (STRING): String indicating the owner of the affected aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier ID.

blockNum (LONGINT): Disk block number.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the disk vendor.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.cksum.stored

Severity

NOTICE

Description

This message occurs when a previously detected bad block is repaired and the checksum of that recalculated block matches the stored checksum.

Corrective Action

(None).

Syslog Message

Recalc %s%s, block #%llu matches stored checksum

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk
blockNum (LONGINT): The disk block number
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.data

Severity

NOTICE

Description

This message occurs when fixing a single-disk media or checksum error on a data disk.

Corrective Action

(None).

Syslog Message

Fixing bad data on %s%s, disk block (DBN) %llu, aggregate block (VBN) %llu.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number containing the block being rewritten.
blockNum (LONGINT): Disk block number.
vbn (LONGINT): Volume block number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is

located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.data.dirty

Severity

NOTICE

Description

This message occurs when fixing a single-disk media or checksum error on a data block that belongs to a dirty parity region.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number containing the block being rewritten.
blockNum (LONGINT): Disk block number.
vbn (LONGINT): Volume block number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.filebno

Severity

NOTICE

Description

This event is issued when a previously detected bad block is repaired.

Corrective Action

(None).

Syslog Message

%s %s%s, %s inode number %d, snapid %d, treeid %d, uid %u, gid %u, file block %llu level %d

Parameters

vol_type (STRING): Whether this error occurred in an aggregate, or a flexible volume.
owner (STRING): Owner of the affected volume or aggregate.

vol (STRING): The name of the volume or aggregate
ino_type (STRING): The inode type
fileid (INT): The file identifier
snapid (INT): The snapshot identifier
treeid (INT): The qtree identifier
uid (INT): The user id that owns the file
gid (INT): The group id that owns the file
bno (LONGINT): The block number in the file
level (INT): The level of the block within the file

raid.rg.readerr.repair.parity

Severity

NOTICE

Description

This message occurs when fixing a single-disk media or checksum error on a parity disk.

Corrective Action

(None).

Syslog Message

Fixing bad parity on %s%s, block #%llu

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk containing the block being rewritten.
blockNum (LONGINT): The disk block number
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.repair.parity.dirty

Severity

NOTICE

Description

This message occurs when fixing a single-disk media or checksum error on a parity block that belongs to a dirty parity region.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk containing the block being rewritten.
blockNum (LONGINT): The disk block number
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.readerr.wc.blkErr

Severity

EMERGENCY

Description

This event occurs when a checksum error due to WAFL context mismatch is detected on a reconsructed block. This error indicates data loss and are caused by misbehaving disks.

Corrective Action

Start wafliron on the indicated volume or aggregate.

Syslog Message

Checksum error due to wafl context mismatch on %s %s%s, %s inode number %d, snapid %d, file block %llu, level %d, RBN %llu. Checksum context has FBN %llu, buftreeid %llu, CP count %u, encrypted flag %d, key index %d, PVBN %lld.

Parameters

vol_type (STRING): String indicating whether the file is contained in a flexible volume or aggregate.
owner (STRING): Owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate
ino_type (STRING): The inode type
fileid (INT): File identifier
snapid (INT): Snapshot identifier
fileBlockNum (LONGINT): Block number in the file
level (INT): Inode indirect pointer level
blockNum (LONGINT): RAID Block Number (RBN) of the block
stored_fbn (LONGINT): Stored file block number in the checksum entry.
stored_buftreeid (LONGINT): Stored buftree identifier in the checksum entry.
stored_cpcount (INT): Stored CP count in the checksum entry.
stored_encrypted_flag (INT): Stored encrypted flag in the checksum entry.
stored_key_index (INT): Stored encryption key index in the checksum entry.
pvbn (LONGINT): Physical Volume Block Number (PVBN) of the block

raid.rg.recon.bad.cksum.embd

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during reconstruction while the aggregate is in media error bypass mode. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. The error is ignored.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu during reconstruction while in media error bypass mode.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recon.bad.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during reconstruction while the aggregate is in media error bypass mode. The checksum entry is zeroed, but the corresponding block is not zeroed. The error is ignored.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during reconstruction while in media error bypass mode.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.

blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.aborted

Severity

NOTICE

Description

This message occurs when reconstruction has been aborted on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction aborted at disk block %llu after %s

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is aborted reconstruction.
blockNum (LONGINT): The physical block number reconstruction stopped
duration (STRING): The amount of time the reconstruction required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.recons.bad.cksum

Severity

NOTICE

Description

This event is issued when reconstruction detects a bad checksum on the stripe while the aggregate is in media error bypass mode.

Corrective Action

(None).

Syslog Message

Checksum mismatch on %s%s, block #%llu during reconstruction; assuming data is correct and fixing checksum

Parameters

>**owner** (STRING): Owner of the aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.bad.cksum.blk

Severity

>NOTICE

Description

>This message occurs when reconstruction corrects a checksum block media error in an advanced_zoned checksums (azcs) RAID group on a stripe while in media error bypass mode. Data ONTAP® takes appropriate recovery actions. Other events describe those actions.

Corrective Action

>(None).

Syslog Message

>Checksum block read error on %s%s for blocks [#%llu - #%llu] during reconstruction; assuming data is correct and fixing checksum.

Parameters

>**owner** (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information about the disk object that contains the error.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.
shelf (STRING): Disk Shelf identifier for the shelf on which the disk drive is located.
bay (STRING): Disk bay within the disk shelf on which the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.bad.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during reconstruction while the aggregate is in media error bypass mode. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. The error is ignored.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during reconstruction while in media error bypass mode.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Disk Shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.block.fail

Severity

ERROR

Description

A block on the reconstructing disk can not be reconstructed because of a media error on another disk in the group. The block is zeroed and written to disk. If the block is allocated, data in that block is corrupted.

Corrective Action

Ensure wafliron successfully completes after this reconstruction is finished. Wafliron will preserve the filesystem consistency.

Syslog Message

Block #%llu can not be properly reconstructed on %s%s - the block will be zeroed

Parameters

blockNum (LONGINT): The physical block number that could not be reconstructed
owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk being reconstructed
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.cantStart

Severity

ERROR

Description

This event is issued when a RAID group is missing a disk but the reconstruction cannot be started.

Corrective Action

Usually, an appropriate spare disk should be installed. Sometimes, the quoted reason and presence of the appropriate spare disks can indicate a different problem.

Syslog Message

The reconstruction cannot start in RAID group %s%s: %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group
reason (STRING): The reason the reconstruction cannot start

raid.rg.recons.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during the RAID reconstruction process. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry. This indicates that the block is read from the wrong location. Data ONTAP® takes appropriate recovery actions, as described in other logged events.

Corrective Action

(None).

Syslog Message

There was a block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during reconstruction.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier ID.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during the RAID reconstruction process. The embedded checksum computed over the checksum entry does not match the stored embedded checksum in the checksum entry, indicating the corruption of the checksum entry. Data ONTAP® takes appropriate recovery actions, as described in other logged events.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during reconstruction.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier ID, and site.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.cksum.err

Severity

NOTICE

Description

This message occurs when the system detects a checksum error on the stripe during a RAID reconstruction operation. The checksum computed is not the same as the stored checksum. Data ONTAP® takes appropriate recovery actions, as described in additional logged events

Corrective Action

(None).

Syslog Message

Checksum error on %s%s, block #%llu during reconstruction.

Parameters

owner (STRING): Owner of the affected aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier ID, and site.

blockNum (LONGINT): Physical block number containing the error.

shelf (STRING): Shelf identifier where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.cksum.rderr

Severity

NOTICE

Description

This message occurs when the system detects a checksum block media error in an advanced_zoned checksum's (AZCS) RAID group during RAID reconstruction. Data ONTAP® takes appropriate recovery actions, as descibed in other logged events.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during reconstruction.

Parameters

owner (STRING): Owner of the disk.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier ID.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during the RAID reconstruction process. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® takes appropriate recovery actions, as described in other logged events.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during reconstruction.

Parameters

owner (STRING): Owner of the disk.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier ID.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.deferred

Severity

NOTICE

Description

This event is issued when the a raid group reconstruction has been deferred due to inadequate incore resources.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction deferred (%s)

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is unable to reconstruct
reason (STRING): A text reason code

raid.rg.recons.deferred.ok

Severity

NOTICE

Description

A previously deferred reconstruction is now ready to proceed.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction previously deferred, now proceeding

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is now able to reconstruct

raid.rg.recons.disabled

Severity

ERROR

Description

This message occurs when a RAID group needs to start reconstruction, but reconstruction is disabled for the RAID group.

Corrective Action

Run the 'aggr recons enable' command for the RAID group.

Syslog Message

Reconstruction needs to be performed on RAID group %s%s, but reconstruction is disabled.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): RAID group name.

raid.rg.recons.done

Severity

NOTICE

Description

This message occurs when reconstruction has been completed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction for %s completed in %s.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.
owner (STRING): Owner of the raid group.
disk (STRING): Name of the disk object for which reconstruction completed.
duration (STRING): The amount of time the reconstruction required
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.recons.info

Severity

NOTICE

Description

This message occurs when a disk is selected for RAID group reconstruction.

Corrective Action

(None).

Spare disk %s will be used to reconstruct one missing disk in RAID group %s%s.

Parameters

disk (STRING): Name of the spare disk object that will be used for reconstruction.
owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.

raid.rg.recons.media.err.bypass

Severity

ERROR

Description

This event is issued when reconstruction detects a read error but the error is bypassed. The block with read error is then zeroed and written to disk.

Corrective Action

Ensure wafliron successfully completes. Wafliron will preserve the filesystem consistency.

Syslog Message

Media error bypass enabled, zeroing block %llu of Disk %s%s

Parameters

blockNum (LONGINT): The physical block number that hit the read error
owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk that hit the read error
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.recons.mismatch

Severity

ERROR

Description

There was no available disk for reconstruction matching all parameters of an ideal replacement in the RAID group. Data ONTAP selected a disk with different interface speed or rpm, or from the opposite spare pool in a sync-mirror configuration.

Corrective Action

Wait for reconstruction to complete. Install an appropriate spare disk. Fail the mismatched disk using 'disk fail'. It will be copied to the new spare disk. After copying is done, use 'disk unfail' to unfail the mismatched

disk and convert it to a spare.

Syslog Message

%s%s: matching disk not available for reconstruction; using disk %s %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group
disk (STRING): The name of the disk used for reconstruction
detail (STRING): Description of disk mismatch; one or more of: from the opposite spare pool, with different rpm.

raid.rg.recons.missing

Severity

NOTICE

Description

Information about disks missing from the RAID group.

Corrective Action

(None).

Syslog Message

RAID group %s%s is missing %d disk(s).

Parameters

owner (STRING): The owner of the RAID group
rg (STRING): The name of the RAID group
missing (INT): Number of disks missing (1 or 2)

raid.rg.recons.multidisk

Severity

NOTICE

Description

This event is issued when the reconstruction encounters an unrecoverable I/O error. We try to avoid panic in this case.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction encountered a multi-disk error

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the reconstructing raid group object.

raid.rg.recons.multidisk.bypass

Severity

NOTICE

Description

Reconstruction can proceed and it will ignore media errors until completion.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction will bypass media errors

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the reconstructing raid group object.

raid.rg.recons.multidisk.fail

Severity

ALERT

Description

The recovery procedure for a media error during reconstruction has failed. The filer will panic to allow recovery after reboot. After reboot, the affected volume will be restricted and marked wafl inconsistent.

Corrective Action

Start wafliron to bring the affected volume online.

Syslog Message

%s%s: failed to recover from a multi-disk error

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the reconstructing raid group object.

raid.rg.recons.resume

Severity

NOTICE

Description

This message occurs when reconstruction has been resumed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: resuming reconstruction, using disk %s (disk block %llu, %d%% complete)

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is initiating reconstruction.
disk (STRING): Name of the disk object that is the reconstruction target.
blockNum (LONGINT): The physical block number on which reconstruction is resuming.
percent (INT): The percentage of reconstruction already complete.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.recons.start

Severity

NOTICE

Description

This message occurs when reconstruction has been initiated on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: starting reconstruction, using disk %s, disk block %llu.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, carrier serial number, and site.
owner (STRING): Owner of the raid group.
disk (STRING): Name of the disk object that is the reconstruction target
startBlockNum (LONGINT): The physical block number on which reconstruction is starting.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.recons.suspended

Severity

NOTICE

Description

This message occurs when reconstruction is suspended on a specific RAID group that is yielding to higher priority reconstruction.

Corrective Action

(None).

Syslog Message

%s%s: reconstruction suspended at disk block %llu after %s, yielding to higher priority reconstruction

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group object that suspended reconstruction.
blockNum (LONGINT): Physical disk block number where reconstruction stopped.
duration (STRING): Amount of time spent on reconstruction before it was suspended.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.recons.throttle

Severity

NOTICE

Description

This event is issued when we start throttling the number of messages that reconstruction generates due to an overwhelming number of messages that are being generated.

Corrective Action

(None).

Syslog Message

Too many bad checksum messages; will emit message once every %d seconds, dropping others.

Parameters

interval (INT): The interval at which we will generate messages

raid.rg.reparity.aborted

Severity

NOTICE

Description

This event is issued when parity recomputation has been aborted on a specific raid group.

Corrective Action

(None).

Syslog Message

%s: parity recomputation aborted after %s

Parameters

rg (STRING): The name of the raid group object that is completed parity recomputation
duration (STRING): The amount of time the reparity ran

raid.rg.reparity.bad.cksum

Severity

NOTICE

Description

This message occurs when the computed checksum of a block does not match the stored checksum during a reparity operation.

Corrective Action

(None).

Syslog Message

Checksum mismatch on %s%s, block #%llu during parity recomputation; data is assumed to be correct and fixing checksum.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM , and carrier serial number.
blockNum (LONGINT): Physical block number containing the error.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during parity recomputation. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during parity recomputation.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Disk Shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during parity recomputation. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during parity recomputation.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.cksum.rderr

Severity

NOTICE

Description

This message occurs when parity recomputation detects a checksum block media error in an advanced_zoned checksum's (azcs) RAID group. Data ONTAP® takes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during parity recomputation.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information about the disk object that contains the error.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.
shelf (STRING): Disk shelf identifier for the disk shelf on which the disk drive is located.
bay (STRING): Disk bay within the disk shelf on which the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during parity recomputation. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during parity recomputation.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Formatted information of the disk object that contains the error.

blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk Shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.deferred

Severity

NOTICE

Description

This event is issued when the a raid group reparity has been deferred due to inadequate incore resources.

Corrective Action

(None).

Syslog Message

%s: parity recomputation deferred (%s)

Parameters

rg (STRING): The name of the raid group object that is unable to reparity
reason (STRING): A text reason code

raid.rg.reparity.deferred.ok

Severity

INFORMATIONAL

Description

This message occurs when a previously deferred reparity operation is now ready to proceed because of availability of incore resources.

Corrective Action

(None).

Syslog Message

%s: parity recomputation previously deferred is now proceeding

Parameters

rg (STRING): Name of the RAID group object that can proceed with reparity operation.

raid.rg.reparity.done

Severity

NOTICE

Description

This event is issued when parity recomputation has been completed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s: parity recomputation completed in %s

Parameters

rg (STRING): The name of the raid group object that is completed parity recomputation
duration (STRING): The amount of time the reparity required

raid.rg.reparity.media.err

Severity

NOTICE

Description

This event is issued when reparity i/o detects a medium error

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu during parity recomputation

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.reparity.rewrite

Severity

NOTICE

Description

This event is issued when we rewrite parity on a stripe.

Corrective Action

(None).

Syslog Message

Rewriting parity on RAID group %s, stripe #%llu.

Parameters

rg (STRING): The name of the RAID group
stripe (LONGINT): The stripe number

raid.rg.reparity.start

Severity

NOTICE

Description

This event is issued when parity recomputation has been initiated on a specific raid group.

Corrective Action

(None).

Syslog Message

%s: starting parity recomputation

Parameters

rg (STRING): The name of the raid group object that is initiating parity recomputation

raid.rg.reparity.throttle

Severity

NOTICE

Description

This event is issued when we start throttling the number of messages that reparity generates due to an overwhelming number of messages that are being generated.

Corrective Action

(None).

Syslog Message

Too many parity/bad checksum messages; will emit message once every %d seconds, dropping others.

Parameters

interval (INT): The interval at which we will generate messages

raid.rg.resync.aborted

Severity

> NOTICE

Description

> This event is issued when resynchronization has been aborted on a specific raid group.

Corrective Action

> (None).

Syslog Message

> %s%s: resynchronization aborted after %s

Parameters

> **owner** (STRING): The owner of the raid group
> **rg** (STRING): The name of the raid group object that is aborting resynchronization
> **duration** (STRING): The amount of time the resynchronization ran
> **aggregate_uuid** (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.resync.done

Severity

> NOTICE

Description

> This event is issued when resynchronization has been completed on a specific raid group.

Corrective Action

> (None).

Syslog Message

> %s%s: resynchronization completed in %s

Parameters

> **owner** (STRING): The owner of the raid group
> **rg** (STRING): The name of the raid group object that is initiating resynchronization
> **duration** (STRING): The amount of time the resynchronization required
> **aggregate_uuid** (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.resync.info

Severity

> NOTICE

Description

> This message occurs periodically at the end of RAID group resynchronization, providing information such as the number of reads and writes issued, and number of blocks copied.

Corrective Action

> (None).

Syslog Message

"%s": number of reads:"%llu" number of writes:"%llu" number of parity blocks read:"%llu" number of blocks copied:"%llu" at throughput rate: %d MB/s.

Parameters

rg (STRING): RAID group in the destination plex.
nreadio (LONGINT): Number of disk reads issued.
nwriteio (LONGINT): Number of tetris writes issued.
nparity_blocks_read (LONGINT): Number of parity blocks read.
nblocks_copied (LONGINT): Number of blocks copied.
throughput (INT): Current throughput rate.

raid.rg.resync.snap.list

Severity

INFORMATIONAL

Description

This message occurs at the beginning and at the end of a resynchronization and it lists a bitmap of snapshots involved in the resynchronization.

Corrective Action

(None).

Syslog Message

%s %s%s: resync snapshots %x %x %x %x %x %x %x %x

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
rg (STRING): RAID group in the resynchronizing plex.
snapmap7 (INT): Bitmap for snapshots 255-224.
snapmap6 (INT): Bitmap for snapshots 223-192.
snapmap5 (INT): Bitmap for snapshots 191-160.
snapmap4 (INT): Bitmap for snapshots 159-128.
snapmap3 (INT): Bitmap for snapshots 127-96.
snapmap2 (INT): Bitmap for snapshots 95-64.
snapmap1 (INT): Bitmap for snapshots 63-32.
snapmap0 (INT): Bitmap for snapshots 31-0.

raid.rg.resync.start

Severity

NOTICE

Description

This event is issued when resynchronization has been initiated on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: start resynchronization (level %d)

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is initiating resynchronization
level (INT): (None).
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.sameCarrier

Severity

NOTICE

Description

This message occurs when the disks selected during aggregate creation and mirroring, disk addition, disk replacement, or reconstruction results in two disks from the same disk carrier being part of a single RAID group. The carrier should not be removed; otherwise the RAID group is doubly degraded, which significantly reduces performance. This situation also increases the chance of data loss. Data loss could occur because of either the user forcing the command to make such a disk selection, or Data ONTAP® could not find more suitable disks. This event is generated for every pair of disks residing in a disk carrier that would become part of a single RAID group. Data ONTAP makes appropriate recovery actions. One or more disk copies are performed to correct the problem.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk1 (STRING): Name of the first disk in the disk carrier.
disk2 (STRING): Name of the second disk in the disk carrier.
owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

raid.rg.scrub.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during RAID parity scrub. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry, indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during RAID parity scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during RAID parity scrub. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during RAID parity scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk Shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is

located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.cksum.err

Severity

NOTICE

Description

This event is issued when scrubbing detects a single-disk checksum error on a stripe.

Corrective Action

(None).

Syslog Message

Checksum error on %s%s, block #%llu during scrub

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.cksum.rderr

Severity

NOTICE

Description

This message occurs when background scrub detects a single-disk checksum block media error in an advanced_zoned checksum's (azcs) RAID group. Data ONTAP® takes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): First physical disk block number containing the error.

LblockNum (LONGINT): Last physical disk block number containing the error.
shelf (STRING): Disk shelf identifier for the disk shelf on which the disk drive is located.
bay (STRING): Disk bay within the disk shelf on which the disk drive is located.
vendor (STRING): Name of the vendor of the disk drive.
model (STRING): Model of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during RAID parity scrub. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during RAID parity scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Disk Shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.context.valid

Severity

NOTICE

Description

This message occurs when scrubbing is completed on a specific RAID group and its context now has parity protection.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group object that completed the scrub.
vol_context (STRING): Status of context parity protection of the aggregate.

raid.rg.scrub.cxt.restart

Severity

NOTICE

Description

This message occurs when a suspended regular scrub is restarting as a context scrub from the beginning instead of resuming regular scrub at the last suspended point. It can happen when a RAID group requires parity updating for context parity protection.

Corrective Action

(None).

Syslog Message

%s%s: restarting suspended scrub for WAFL context parity protection.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.

raid.rg.scrub.deferred

Severity

NOTICE

Description

This event is issued when the a raid group scrub has been deferred due to inadequate incore resources.

Corrective Action

(None).

Syslog Message

%s%s: scrub deferred (%s)

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is unable to scrub
reason (STRING): A text reason code

raid.rg.scrub.deferred.ok

Severity

NOTICE

Description

A previously deferred scrub is now ready to proceed.

Corrective Action

(None).

Syslog Message

%s%s: scrub previously deferred, now proceeding

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is now able to scrub

raid.rg.scrub.done

Severity

NOTICE

Description

This event is issued when scrubbing has been completed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: scrub completed in %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is completed scrub
duration (STRING): The amount of time the scrubbing required
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.scrub.lw.aborted

Severity

NOTICE

Description

This message occurs when the system aborts a special type of RAID scrub because it detected an inconsistent RAID write signature on the specified RAID group. The RAID scrub is required before lost-write protection for RAID I/O can be used on the RAID group.

Corrective Action

(None).

%s%s stripe #%llu: scrub needed to enable lost-write protection for RAID I/O aborted after %s.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group object for which the lost-write scrub was aborted.
stripe (LONGINT): RAID stripe on which the inconsistent write signature was detected.
duration (STRING): Amount of time the lost-write scrub has taken.

raid.rg.scrub.lw.restart

Severity

NOTICE

Description

This message occurs when a suspended regular scrub is restarting from the beginning to allow lost-write protection for RAID I/O instead of resuming regular scrub at the last suspended point. This happens when lost-write protection for RAID I/O is enabled on this RAID group while a regular scrub is suspended.

Corrective Action

(None).

Syslog Message

%s%s: restarting suspended scrub to enable lost-write protection for RAID I/O.

Parameters

owner (STRING): Owner of the RAID group.
rg (STRING): Name of the RAID group.

raid.rg.scrub.media.err

Severity

NOTICE

Description

This message occurs when scrub I/O detects a medium error on a disk that is also called as an unrecoverable access error. This error is fixed immediately by reconstructing blocks from parity data.

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu, during scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Name of the disk object that contains the error.
blockNum (LONGINT): Physical block number containing the error.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.media.err.bypass

Severity
INFORMATIONAL

Description
This event is issued when a read error is detected but ignored due to the presence of media bypass (ignore double errors).

Corrective Action
(None).

Syslog Message
Media error bypass enabled, zeroing disk block %llu of %s%s

Parameters
blockNum (LONGINT): The physical block number containing the error.
owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.media.errs

Severity
NOTICE

Description
This event is issued when scrubbing detects a multi-disk media error on a stripe.

Corrective Action
(None).

Syslog Message

Multiple bad blocks on %s%s, block #%llu during scrub

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): The name of the raid group object that contains the multi-disk error.
blockNum (LONGINT): The physical block number containing the error.

raid.rg.scrub.media.recommend.reassign.err

Severity

NOTICE

Description

This event is issued when scrub i/o detects a recommend reassign error

Corrective Action

(None).

Syslog Message

Block recommended for reassignment on %s%s, block #%llu during scrub

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.pi

Severity

NOTICE

Description

This message occurs when RAID scrub finds an inconsistent parity stripe. Data ONTAP® makes appropriate recovery actions, as described in other logged events.

Corrective Action

(None).

Syslog Message

Inconsistent parity on RAID group %s, stripe #%llu.

Parameters

rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.rg.scrub.resume

Severity

NOTICE

Description

This event is issued when scrubbing has been resumed on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: resuming scrub at stripe %llu (%d%% complete)

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is resuming scrubbing
stripe (LONGINT): resuming at stripe.
percentage (INT): (None).
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.scrub.rewrite.data

Severity

NOTICE

Description

This message occurs when scrub fixes a parity inconsistency error.

Corrective Action

(None).

Syslog Message

Scrub fixing bad data on disk %s%s, block #%llu.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk drive containing the block being rewritten.
blockNum (LONGINT): Disk block number.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.rewrite.parity

Severity

NOTICE

Description

This message occurs when scrub fixes a parity inconsistency error.

Corrective Action

(None).

Syslog Message

Scrub fixing bad parity on disk %s%s, block #%llu.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk drive containing the block being rewritten.
blockNum (LONGINT): Disk block number.
shelf (STRING): Disk shelf identifier where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where disk drive is located.
vendor (STRING): Name of the vendor of the disk drive.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.rg.scrub.start

Severity

NOTICE

Description

This event is issued when scrubbing has been initiated on a specific raid group.

Corrective Action

(None).

Syslog Message

%s%s: starting scrub

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is initiating scrubbing
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.scrub.start.zone

Severity

NOTICE

Description

This event is issued when scrubbing has been initiated on a specific raid group for a specific range.

Corrective Action

(None).

Syslog Message

%s%s: starting scrub at range [%llu - %llu]

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that is initiating scrubbing
begin (LONGINT): starting at stripe.
end (LONGINT): ending at stripe.

raid.rg.scrub.stopped

Severity

NOTICE

Description

This event is issued when scrub is stopped on specified raid group.

Corrective Action

(None).

Syslog Message

%s%s: scrub stopped at stripe %llu after %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that the scrub is stopped
stripe (LONGINT): stopped at stripe.
duration (STRING): The amount of time the scrub has taken.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.scrub.summary.cksum

Severity

NOTICE

Description

This event is generated as a summary report for checksum errors found during a scrub.

Corrective Action

(None).

Syslog Message

Scrub found %d checksum error%s in %s%s

Parameters

errors (INT): The total number of checksum errors found
suffix (STRING): The suffix used to report in syslog
rg (STRING): The name of the raid group
current (STRING): The current status

raid.rg.scrub.summary.lw

Severity

NOTICE

Description

This message occurs as a summary report for lost-write errors found during a scrub.

Corrective Action

(None).

Syslog Message

Scrub found %d RAID write signature inconsistenc%s in %s%s

Parameters

errors (INT): Total number of RAID write signature inconsistencies found.
suffix (STRING): Suffix used to report in syslog.
rg (STRING): Name of the RAID group.
current (STRING): Current status.

raid.rg.scrub.summary.media

Severity

NOTICE

Description

This event is generated as a summary report for media errors found during a scrub.

Corrective Action

(None).

Syslog Message

Scrub found %d media error%s in %s%s

Parameters

errors (INT): The total number of media errors found
suffix (STRING): The suffix used to report in syslog
rg (STRING): The name of the raid group
current (STRING): The current status

raid.rg.scrub.summary.pi

Severity

NOTICE

Description

This event is generated as a summary report for parity inconsistencies found during a scrub.

Corrective Action

(None).

Syslog Message

Scrub found %d parity inconsistenc%s in %s%s

Parameters

pis (INT): The total number of parity inconsistencies found
suffix (STRING): The suffix used to report in syslog
rg (STRING): The name of the raid group
current (STRING): The current status

raid.rg.scrub.suspended

Severity

NOTICE

Description

This event is issued when scrub is suspended on specified raid group.

Corrective Action

(None).

Syslog Message

%s%s: scrub suspended at stripe %llu after %s

Parameters

owner (STRING): The owner of the raid group
rg (STRING): The name of the raid group object that the scrub is suspended
stripe (LONGINT): suspended at stripe.
duration (STRING): The amount of time the scrub has taken.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.rg.spares.low

Severity

ERROR

Description

This message occurs when the number of available spares for a RAID group drops below the value specified in raid.min_spare_count. If a RAID reconstruct operation is required (for example, due to a future disk failure), the system might enter a degraded mode.

Corrective Action

Assign unowned disks to this system. If there are no unowned disks, physically add more spare disks and assign them to this system.

Syslog Message

%s

Parameters

msg (STRING): Name of the RAID group.

raid.rg.trecons

Severity

NOTICE

Description

This message occurs when triple reconstruction is initiated after the failure of three disks in RAID-TEC raid group.

Corrective Action

(None).

Syslog Message

%s%s: starting triple reconstruction, using disks %s and %s and %s

Parameters

owner (STRING): Owner of the raid group.
rg (STRING): Name of the raid group object that is initiating triple reconstruction.
disk (STRING): Name of the disk object that is the first reconstruction target.
disk1 (STRING): Name of the disk object that is the second reconstruction target.
disk2 (STRING): Name of the disk object that is the third reconstruction target.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.root events

raid.root.unmirrored

Severity

ALERT

Description

This message occurs when the root volume is not mirrored in a MetroCluster(tm) configuration.

Corrective Action

Mirror the root volume if this storage controller is part of a MetroCluster configuration by using the "storage aggregate mirror" command.

Syslog Message

The root volume is not mirrored. A takeover/switchover of this storage controller might not be possible if a disaster occurs.

Parameters

(None).

raid.root.vol.noFaultIsolation

Severity

ALERT

Description

This message occurs when creation of the initial root aggregate is forced to use disks that would be from both Pool0 and Pool1 if it was to be upgraded to a mirrored root.

Corrective Action

a) Determine how this occurred: possible cause is a wiring problem. b) Based on the information you gather, determine how to correct the issue. For example, use the "storage disk replace" command to copy the disk belonging to the wrong pool to a disk belonging to the right pool. For MetroCluster configurations, this would mean using "storage disk replace" to copy any pool1 disk in the root to a pool0 disk. c) If you need assistance, contact NetApp technical support.

Syslog Message

Root volume %s%s: Current plex will have disks from mixed pools if the root volume is upgraded to mirror.

Parameters

owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.scrub events

raid.scrub.failed.to.schedule

Severity

NOTICE

Description

This message occurs when scrub cannot be scheduled as specified by the "raid.scrub.schedule" option.

Corrective Action

(None).

Syslog Message

Failed to schedule scrub as specified by the "raid.scrub.schedule" option. Default scrub schedule is added.

Parameters

(None).

raid.scrub.lw.id.inconsist

Severity

NOTICE

Description

This message occurs when the system detects an inconsistent RAID write signature on a RAID stripe during a RAID scrub operation. This inconsistent RAID write signature might be due to a write operation not being successfully committed to disk. Data ONTAP® attempts to recover the bad block automatically. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature on RAID group %s%s, stripe #%llu, stripe bitmap %llu, during scrub.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.
more_stripes (LONGINT): Bitmap representing all of the stripes that encountered the lost write error. The bit set in this bitmap gives the stripe number relative to the stripes parameter.

raid.scrub.suspended

Severity

NOTICE

Description

This event is issued if automatic/scheduled scrub is suspended on some raid group because of a group state transition.

Corrective Action

(None).

Syslog Message

Disk scrub suspended.

Parameters

(None).

raid.scrub.suspended.timer

Severity

NOTICE

Description

This event is issued if automatic/scheduled scrub is suspended on some raid group because the allocated time limit was exceeded.

Corrective Action

(None).

Syslog Message

Disk scrub suspended because the scrub time limit %d was exceeded. It will resume at the next weekly/scheduled scrub.

Parameters

duration (INT): Duration (in mins) after which scrub is automatically suspended.

raid.shared events

raid.shared.disk.awaiting.done

Severity

INFORMATIONAL

Description

This message occurs when a node receives an indication from its HA partner node that a shared disk is undergoing a change in state and the partner is waiting for the local node to complete a shared state transition.

Corrective Action

(None).

Syslog Message

Received shared disk awaiting done %s, state %s, substate 0x%lX, partner state %s, partner substate 0x%lX, partner dblade ID %s host type %d add details %s

Parameters

disk_info (STRING): Formatted information of the shared disk.
local_state (STRING): State of the shared disk on the local node.
local_substate (LONGINTHEX): Sub-state of the shared disk on the local node.
partner_state (STRING): State of the shared disk on the partner node.
partner_substate (LONGINTHEX): Sub-state of the shared disk on the partner node.
received_ack (STRING): Dblade ID of node sending await done ack.
host_type (INT): Type of host node sending await done ack.
add_details (STRING): Additional details of the awaiting done event.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is

located. For non-MetroCluster configurations, site is 'Local'.

raid.shared.disk.exchange

Severity

INFORMATIONAL

Description

This message occurs when a node receives an indication from its HA partner node that a shared disk is undergoing a change in state (e.g., disk is failing, going offline, or is getting unfailed). Accompanying EMS messages will indicate if any corrective action is required.

Corrective Action

(None).

Syslog Message

Received shared disk state exchange %s, event %s, state %s, substate 0x%IX, partner state %s, partner substate 0x%IX, failure reason %s, sick reason %s, offline reason %s, online reason %s, partner dblade ID %s, host %d %s

Parameters

disk_info (STRING): Formatted information of the shared disk.
event (STRING): Describes the event which caused the partner to send this state exchange message. If this is a periodic exchange instead of an event triggered exchange, event is NONE.
local_state (STRING): State of the shared disk on the local node.
local_substate (LONGINTHEX): Sub-state of the shared disk on the local node.
partner_state (STRING): State of the shared disk on the partner node.
partner_substate (LONGINTHEX): Sub-state of the shared disk on the partner node.
failure_reason (STRING): Describes the error leading to the partner node failing the shared disk.
sick_reason (STRING): Describes the error leading to the partner node prefailing the shared disk.
offline_reason (STRING): Describes the reason the partner node is offlining the shared disk.
online_reason (STRING): Describes the reason the partner node is onlining the shared disk.
recv_reply (STRING): Describes the dblade ID of a partner node that sent a reply.
host_type (INT): Type of host sending the reply.
add_details (STRING): Additional partner node details of the shared disk state exchange.
timestamp (INT): Timestamp of the last on-disk state change.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.sp events

raid.sp.add.aggr.grow.noDone

Severity

NOTICE

Description

This message occurs when one or more aggregate's capacity is not increased as part of the storage pool add job.

Corrective Action

Use the (privilege: diagnostic) "storage pool add -storage-pool <storage pool name> -auto-grow -aggregates" command to retry the operation. If the condition persists, contact NetApp technical support.

Syslog Message

Could not grow one or more aggregates provisioned from storage pool %s.

Parameters

name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.add.success

Severity

NOTICE

Description

This message occurs when disks are added to the storage pool and all the aggregates provisioned from the storage pool have been grown to take capacity from new disks.

Corrective Action

(None).

Syslog Message

Disks %s added to storage pool %s.

Parameters

disks (STRING): List of disks added to the storage pool.
name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.aggr.add.rollback

Severity

NOTICE

Description

This message occurs when available capacity is reassigned to a storage pool because adding storage pool capacity to an aggregate failed. This can happen if the node owning the aggregate is rebooted while additional storage pool capacity is zeroing. Other events provide additional failure information.

Corrective Action

(None).

Syslog Message

Aggregate add job for aggregate %s successfully rolled back available capacity to storage pool %s.

Parameters

aggr (STRING): Name of the aggregate to which capacity is being added.
name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
aggrUuid (STRING): UUID of the aggregate.
owner (STRING): Owning node of the aggregate.
curUnit (INT): Current available allocation unit.
prevUnit (INT): Allocation unit available before the job started.
jobid (LONGINT): ID of the job.

raid.sp.aggr.add.success

Severity

NOTICE

Description

This message occurs when capacity from a storage pool is added to an aggregate.

Corrective Action

(None).

Syslog Message

Added %d allocation units from storage pool %s to aggregate %s.

Parameters

allocationUnits (INT): Number of allocation units added.
name (STRING): Name of the storage pool.
aggr (STRING): Name of the aggregate to which capacity is added.
uuid (STRING): UUID of the storage pool.
aggrUuid (STRING): UUID of the aggregate.
jobid (LONGINT): ID of the job.

raid.sp.aggr.grow.success

Severity

NOTICE

Description

This message occurs when an aggregate capacity is successfully increased to span all disks belonging to a storage pool.

Corrective Action

(None).

%s added to aggregate %s from storage pool %s.

Parameters

capacity (STRING): Amount of capacity added to the aggregate.
aggr (STRING): Name of the aggregate whose capacity is increased.
name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
aggrUuid (STRING): UUID of the aggregate.
jobid (LONGINT): ID of the job.

raid.sp.create.failure

Severity

ERROR

Description

This message occurs when a storage pool creation operation fails.

Corrective Action

Use the "storage pool delete -storage-pool <storage pool name>" command to delete the partially created storage pool and then retry the create operation. If the condition persists, contact NetApp technical support.

Syslog Message

Storage pool %s was not successfully created. Reason: %s

Parameters

name (STRING): Name of the storage pool.
reason (STRING): Reason for failure.
uuid (STRING): UUID of the storage pool.
nodes (STRING): List of nodes sharing the storage pool.
disks (STRING): List of disks used to create the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.create.success

Severity

NOTICE

Description

This message occurs when a storage pool is created successfully.

Corrective Action

(None).

Syslog Message

Storage pool %s was created.

Parameters

name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.

nodes (STRING): List of nodes sharing the storage pool.
disks (STRING): List of disks used to create the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.delete.success

Severity

NOTICE

Description

This message occurs when a storage pool is deleted successfully.

Corrective Action

(None).

Syslog Message

Storage pool %s deleted.

Parameters

name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.healthy

Severity

NOTICE

Description

This message occurs when Data ONTAP® detects that a storage pool that was unhealthy earlier has become healthy again.

Corrective Action

(None).

Syslog Message

Storage pool %s is now healthy.

Parameters

name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.

raid.sp.reassign.success

Severity

NOTICE

Description

This message occurs when available capacity is reassigned successfully from one node to another node in a storage pool.

Corrective Action

(None).

Syslog Message

Reassigned %d allocation units from node %s to node %s for storage pool %s.

Parameters

allocationUnits (INT): Number of allocation units reassigned.
source (STRING): Node that owns the available capacity to be reassigned.
destination (STRING): Node to which the available capacity is reassigned.
name (STRING): Name of the storage pool.
uuid (STRING): UUID of the storage pool.
jobid (LONGINT): ID of the job.

raid.sp.unhealthy

Severity

NOTICE

Description

This message occurs when Data ONTAP® detects that a storage pool has become unhealthy.

Corrective Action

(None).

Syslog Message

Storage pool %s is unhealthy. Reason: %s

Parameters

name (STRING): Name of the storage pool.
reason (STRING): Reason for the storage pool being unhealthy.
uuid (STRING): UUID of the storage pool.

raid.sp.unlock.failed

Severity

ALERT

Description

This message occurs when the storage pool cannot be unlocked after the storage pool operation has finished.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to unlock the storage pool %s. Reason: %s

Parameters

name (STRING): Name of the storage pool.
reason (STRING): Reason for failure.

uuid (STRING): UUID of the storage pool.
jobid (LONGINT): ID of the job.

raid.sparecore events

raid.sparecore.disk.ownership.change

Severity

NOTICE

Description

This message occurs when a sparecore disk is prepared for ownership change by administrator forcibly.

Corrective Action

(None).

Syslog Message

Ownership of a sparecore disk %s, is being changed by administator forcibly.

Parameters

disk_info (STRING): Formatted information of the disk.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the disk shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares events

raid.spares.media_scrub.media.err

Severity

NOTICE

Description

This event is issued when a media_scrub i/o detects a medium error on a spare disk

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu during media_scrub

Parameters

owner (STRING): String indicating the owner of the affected spare drive.
disk_info (STRING): The name of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares.media_scrub.media.recommend.reassign.err

Severity

NOTICE

Description

This event is issued when a background media scrub i/o detects a recommend reassign error on a spare drive

Corrective Action

(None).

Syslog Message

Block recommended for reassignment on %s%s, block #%llu during media_scrub

Parameters

owner (STRING): String indicating the owner of the affected spare drive.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares.media_scrub.rewrite.chunk

Severity

INFORMATIONAL

Description

This message occurs when background media scrub rewrites a chunk of blocks for a spare ATA drive.

Corrective Action

(None).

Syslog Message

media_scrub rewriting chunk on %s%s, start block #%llu, count #%d.

Parameters

owner (STRING): Owner of the affected spare disk.
disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
blockNum (LONGINT): Physical block number at which the chunk starts.
count (INT): Number of blocks being rewritten.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model name of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares.media_scrub.start

Severity

NOTICE

Description

This event is issued when media_scrub is initiated on a spare drive.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): String indicating the owner of the affected spare drive.
disk_info (STRING): The name of the disk object that contains the error.
blockNum (LONGINT): Disk block number at which media scrub started.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares.media_scrub.stopped

Severity

NOTICE

Description

This event is issued when media_scrub stops on a spare drive.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): String indicating the owner of the affected spare drive.
disk_info (STRING): The name of the disk object that contains the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.spares.media_scrub.suspend

Severity

NOTICE

Description

This event is issued when media_scrub suspends on a spare drive.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): String indicating the owner of the affected spare drive.
disk_info (STRING): The name of the disk object that contains the error.
blockNum (LONGINT): Disk block number at which media scrub suspended

percentage (INT): Percentage scan completed.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.stripe events

raid.stripe.replay.bad.block

Severity

ERROR

Description

This event is issued when we encounter a bad block buffer entry in NVRAM during stripe replay (indicating corrupted NVRAM). Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Bad block buffer entry in NVRAM.

Parameters

(None).

raid.stripe.replay.bad.checksum

Severity

ERROR

Description

This event is issued when we encounter a checksum error in NVRAM during stripe replay (indicating corrupted NVRAM). Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Checksum error in NVRAM.

Parameters

(None).

raid.stripe.replay.bad.key

Severity

ERROR

Description

This event is issued when we cannot find a block buffer using a key during stripe replay (indicating corrupted NVRAM). Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Stripe %llu: cannot find NVRAM slot using key %d in %s %s.

Parameters

stripe (LONGINT): The stripe number.
key (INT): The key used.
vol_type (STRING): Volume type.
vol (STRING): Aggregate name if found, otherwise NOT FOUND.

raid.stripe.replay.bad.stripe

Severity

ERROR

Description

This event is issued when we encounter a bad stripe entry in NVRAM during stripe replay (indicating corrupted NVRAM). Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Bad stripe entry in NVRAM.

Parameters

(None).

raid.stripe.replay.nvgen.mismatch

Severity

NOTICE

Description

This message occcurs when RAID encounters an NVRAM generation mismatch for an aggregate during stripe replay. Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

(None).

Syslog Message

NVRAM generation mismatch for %s %s%s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.stripe.replay.plex.unavailable

Severity

NOTICE

Description

This message occurs when RAID encounters an NVRAM stripe entry for an offline or failed plex during stripe replay. Reparity will start automatically when the plex comes online. At that time, reparity will update parity in stripes involved in recent writes.

Corrective Action

(None).

Syslog Message

Plex %s in %s %s%s is offline or failed.

Parameters

plex (STRING): Name of the plex.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.stripe.replay.pzero.mismatch

Severity

ERROR

Description

This event is issued when the checksum of the parity block (as stored in the stripe slot) does not match the actual checksum of the parity block. This indicates corrupted NVRAM contents. Reparity will start automatically and update parity in stripes involved in recent writes.

Corrective Action

Need to replace NVRAM if observed repeatedly during different boot-ups.

Syslog Message

Parity block checksum mismatch detected in NVRAM for stripe %llu in %s %s.

Parameters

stripe (LONGINT): The stripe number.
vol_type (STRING): Volume type.
vol (STRING): Aggregate name if found, otherwise NOT FOUND.

raid.stripe.replay.rg.failed

Severity

NOTICE

Description

This message occurs when RAID encounters a RAID group failure during stripe RAID replay. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Replay of %s %s%s, plex %s, RAID group %s, stripe %llu failed because of RAID group failure.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
plex (STRING): Name of the plex.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.

raid.stripe.replay.rg.invalid

Severity

NOTICE

Description

This message occurs when RAID encounters an NVRAM stripe entry for a missing RAID group during stripe replay.

Corrective Action

(None).

Syslog Message

Invalid RAID group identifier %d in %s %s%s, plex %s.

Parameters

rgid (INT): Identifier of the RAID group.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
plex (STRING): Name of the plex.

raid.stripe.replay.summary

Severity

INFORMATIONAL

Description

This event is generated when stripe replay is complete.

Corrective Action

(None).

Syslog Message

Replayed %u stripes.

Parameters

nstripes (INT): The number of stripes

raid.stripe.replay.vol.cleanly.shutdown

Severity

NOTICE

Description

This message occurs when RAID encounters an NVRAM stripe entry for a cleanly shutdown aggregate during stripe replay.

Corrective Action

(None).

Syslog Message

%s %s%s was cleanly shut down.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.stripe.replay.volume.missing

Severity

NOTICE

Description

This message occurs when RAID encounters an NVRAM stripe entry for a missing aggregate during stripe replay. Reparity will start automatically when the aggregate appears again. At that time, reparity will update parity in stripes involved in recent writes.

Corrective Action

(None).

Syslog Message

Cannot find aggregate with identifier %s.

Parameters

volId (STRING): Identifier of the aggregate.

raid.stripe.replay.volume.offline

Severity

NOTICE

Description

This message occurs when RAID encounters an NVRAM stripe entry for an offline aggregate during stripe replay. Reparity will start automatically when the aggregate comes online. At that time, reparity will update parity in stripes involved in recent writes.

Corrective Action

(None).

Syslog Message

%s %s %s is not online.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.switchoverfail events

raid.switchoverFail

Severity

ERROR

Description

This message occurs when a MetroCluster(tm) switchover attempt fails because of an error detected during RAID assimilation.

Corrective Action

Contact NetApp technical support.

Syslog Message

Switchover assimilation failed: %s.

Parameters

reason (STRING): Reason for the switchover assimilation failure.

raid.switchovernodisks events

raid.switchoverNoDisks

Severity

INFORMATIONAL

Description

This message occurs when a MetroCluster(tm) switchover finds no disks during RAID assimilation.

Corrective Action

(None).

Syslog Message

MetroCluster switchover assimilation found no disks.

Parameters

(None).

raid.syncmirr events

raid.syncmirr.at.IOrecovery

Severity

ERROR

Description

This message occurs in a SyncMirror® configuration (with SyncMirror aggressive timeout capability), when RAID cannot service earlier timed-out I/O from the other plex.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem aggregate, offline plex, and plex mirror status from the event logs. 2. Determine the reason for attempting to bring the plex offline, such as adapter, controller or multidisk failures. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support.

Syslog Message

Expect longer I/O service time on plex %s due to error status %s.

Parameters

plex (STRING): Name of the plex.
status (STRING): Status while the plex was brought offline.

raid.syncmirror events

raid.syncmirror.agrsv.to

Severity

ERROR

Description

This message occurs in a SyncMirror® configuration (with SyncMirror aggressive timeout capability), when a disk I/O times out with an error.

Corrective Action

The system will attempt to recover using the other plex. If the error persists, consider replacing the drive or the adapter.

Syslog Message

Disk driver aggressively timed out an I/O to %s%s belonging to a SyncMirror plex %s. RAID will now attempt to bring the plex offline and redrive the I/O from the other plex.

Parameters

owner (STRING): String indicating the owner of the affected disk.
disk_info (STRING): Name of the disk.
plex (STRING): Name of the affected plex.

raid.syncmirror.at.degraded

Severity

ALERT

Description

This message occurs in a SyncMirror® configuration (with SyncMirror aggressive timeout capability), when a mirror goes into degraded state as a result of an offline plex.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem aggregate, the offline plex, and plex mirror status from the event logs. 2. Determine the reason for the offline plex, such as adapter, controller or multidisk failures. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support. 4. Bring the plex online manually after you replace the faulty components.

Syslog Message

%s%s [UUID:%s] is mirrored and %s plex is offline. It is no longer protected by mirroring.

Parameters

owner (STRING): Owner of the aggregate.
aggregate (STRING): Name of the aggregate.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.
plex (STRING): Name of the offline plex.

raid.syncmirror.in.use

Severity

INFORMATIONAL

Description

This message occurs when the SyncMirror® license is currently in use.

Corrective Action

(None).

Syslog Message

(None).

Parameters

nAggrs (INT): Total number of aggregates on the system.
nMirrored (INT): Number of aggregates mirrored.

rootMirrored (STRING): Indicates whether root aggregate is mirrored or not.

raid.syncmirror.plex.online

Severity

NOTICE

Description

This message occurs in a SyncMirror® configuration, when bringing online an offline plex.

Corrective Action

(None).

Syslog Message

The plex %s is now online.

Parameters

plex (STRING): Name of the plex.

raid.tetris events

raid.tetris.cksum.bno

Severity

NOTICE

Description

This message occurs when the system detects a block number mismatch during a write operation. The expected Virtual Block Number (VBN)/Disk Block Number (DBN) is not the same as the stored VBN/DBN from the checksum entry indicating that the block is read from the wrong location. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Block number mismatch on %s%s: stored_dbn = %u, expected_dbn = %llu; stored_vbn = %llu, expected_vbn = %llu during write operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object that contains the error, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.
stored_dbn (INT): Physical disk block number stored in the checksum entry.
expected_dbn (LONGINT): Expected physical disk block number.
stored_vbn (LONGINT): Volume block number stored in the checksum entry.
expected_vbn (LONGINT): Expected volume block number.
shelf (STRING): Identifier of the shelf where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk drive is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.cksum.embed

Severity

NOTICE

Description

This message occurs when the system detects an invalid checksum entry during a write operation. The embedded checksum computed over the checksum entry do not match, indicating the corruption of the checksum entry. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Invalid checksum entry on %s%s, block #%llu, during write operation.

Parameters

owner (STRING): Owner of the affected aggregate.

disk_info (STRING): Information about the disk object that contains the error, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.

blockNum (LONGINT): Physical disk block number containing the error.

shelf (STRING): Identifier of the shelf where the disk drive is located.

bay (STRING): Disk bay within the shelf where the disk drive is located.

vendor (STRING): Name of the disk drive vendor.

model (STRING): Model string of the disk drive.

firmware_revision (STRING): Firmware revision number of the disk drive.

serialno (STRING): Serial number of the disk drive.

disk_type (INT): Type of disk drive.

disk_rpm (STRING): Rotational speed of the disk drive, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk drive is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.cksum.err

Severity

NOTICE

Description

This message occurs when tetris I/O detects a checksum error. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Checksum error on %s%s, block #%llu during stripe write.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object that contains the error, including disk name, path, shelf, bay, serial number, vendor, model, rpm , and carrier serial number.
blockNum (LONGINT): Physical block number containing the error.
shelf (STRING): Identifier of the shelf where the disk drive is located.
bay (STRING): Disk bay within the shelf where the disk drive is located.
vendor (STRING): Name of the vendor of the disk drive.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk drive is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.cksum.rderr

Severity

NOTICE

Description

This message occurs when the system detects a checksum block media error in an advanced_zoned checksum's (AZCS) RAID group during a stripe write operation. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Checksum block read error on %s%s for blocks [#%llu - #%llu] during stripe write.

Parameters

owner (STRING): Owner of the disk drive.
disk_info (STRING): Information about the disk object that contains the error, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.
blockNum (LONGINT): First physical disk block number containing the error.
LblockNum (LONGINT): Last physical disk block number containing the error.
shelf (STRING): Identifier of the shelf where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk drive is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.cksum.zero

Severity

NOTICE

Description

This message occurs when the system detects an empty checksum entry during a write operation. The checksum entry is zeroed, but the corresponding block is not zeroed. Data ONTAP® makes appropriate recovery actions. Other events describe those actions.

Corrective Action

(None).

Syslog Message

Empty checksum entry for non-zeroed block on %s%s, block #%llu, during a write operation.

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Information about the disk object that contains the error, including disk name, path, shelf, bay, serial number, vendor, model, rpm, and carrier serial number.
blockNum (LONGINT): Physical disk block number containing the error.
shelf (STRING): Identifier of the shelf where the disk drive is located.
bay (STRING): Disk bay within the disk shelf where the disk drive is located.
vendor (STRING): Name of the disk drive vendor.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk drive.
serialno (STRING): Serial number of the disk drive.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of the disk drive, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk drive is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.lw.id.inconsist

Severity

NOTICE

Description

This message occurs during a write operation, when the system detects an inconsistent RAID write signature on a RAID stripe. Data ONTAP® makes appropriate recovery actions. It automatically fails this device safely if the device exceeds the allowed number of inconsistent RAID write signature errors on the disk.

Corrective Action

(None).

Syslog Message

Inconsistent RAID write signature detected on RAID group %s%s, stripe #%llu, stripe bitmap %llu, during write operation.

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the raid group.
stripe (LONGINT): Stripe number.
more_stripes (LONGINT): Bitmap representing all of the stripes that encountered the lost write error. The bit set in this bitmap gives the stripe number relative to the stripes parameter.

raid.tetris.lw.id.inconsist.dirty

Severity

NOTICE

Description

This message occurs during a write operation, when the system detects an inconsistent RAID write signature on a RAID stripe that belongs to a dirty parity region.

Corrective Action

(None).

Syslog Message

(None).

Parameters

owner (STRING): Owner of the affected aggregate.
rg (STRING): Name of the RAID group.
stripe (LONGINT): Stripe number.
more_stripes (LONGINT): Bitmap representing all of the stripes that encountered the lost write error. The bit set in this bitmap gives the stripe number relative to the stripes parameter.

raid.tetris.media.err

Severity

NOTICE

Description

This event is issued when tetris i/o detects a medium error

Corrective Action

(None).

Syslog Message

Read error on %s%s, block #%llu during stripe write

Parameters

owner (STRING): Owner of the affected aggregate.
disk_info (STRING): Formatted information of the disk object that contains the error.
blockNum (LONGINT): The physical block number containing the error.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk

serialno (STRING): Serial number of the disk

disk_type (INT): Type of disk drive

disk_rpm (STRING): Rotational speed of disk in RPM

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tetris.media.recommend.reassign.err

Severity

NOTICE

Description

This message occurs when RAID tetris I/O detects a "recommend reassign" error for a disk block. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

Block recommended for reassignment on %s%s, Block #%llu during stripe write.

Parameters

owner (STRING): Owner of the affected aggregate.

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

blockNum (LONGINT): Physical block number containing the error.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.tree events

raid.tree.remove.activeIOs

Severity

NOTICE

Description

This message occurs when RAID I/Os are active while removing a disk from the RAID tree. This event is logged in debug builds only.

Corrective Action

(None).

Syslog Message

Remove disk %s from vol %s: disk has %d active RAID I/Os.

Parameters

disk_name (STRING): Name of the disk.
tree_name (STRING): Name of the RAID tree.
active_ios (INT): Number of active I/Os to the disk.

raid.uninitialized events

raid.uninitialized.parity.vol

Severity

EMERGENCY

Description

This message occurs periodically to warn the user that the aggregate has no RAID protection and that data loss can occur if a disk fails. Do not fail disks in this aggregate. The state of the aggregate is the result of a special boot mode. If the aggregate requires RAID protection, you should stop writing to it and then restrict it from further writing. Also, avoid creating new aggregates or extending the capacity of existing aggregates. Copy data from existing aggregates to other system and reinitialize the system.

Corrective Action

Contact NetApp technical support.

Syslog Message

• WARNING * %s %s%s was created with no parity; don't fail its data disks!!

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.unpartition events

raid.unpartition.disk

Severity

NOTICE

Description

This message indicates a disk was successfully unpartitioned.

Corrective Action

(None).

Syslog Message

Disk unpartition successful on %s.

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.unpartition.disk.fail

Severity

NOTICE

Description

This message occurs when an attempt to unpartition a disk fails. The error and error_info fields indicate the reason why the attempt failed.

Corrective Action

(None).

Syslog Message

Disk unpartition failed on %s, error %s, additional error info (%s).

Parameters

disk_info (STRING): Formatted information of the disk. This includes the disk's containing volume name and other attributes, such as shelf, bay, vendor, model, firmware revision, serial number, and type.
error (STRING): String name for the error.
error_info (STRING): Additional error information.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the disk vendor.
model (STRING): Model string of the disk.
firmware_revision (STRING): Disk firmware revision number.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.unsupported events

raid.unsupported.bitformat

Severity

ERROR

Description

This message occurs when configuration management detects that the disk belongs to a 32-bit aggregate, the use of which has been deprecated. The disk is removed from service.

Corrective Action

Install a version of Data ONTAP® that supports the 32-bit aggregate, or remove the 32-bit aggregate disks.

Syslog Message

The label on %s indicates that the disk belongs to a 32-bit aggregate, the use of which has been deprecated.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.
shelf (STRING): Identifier of the shelf where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
failure_reason (STRING): Text description of the storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is Local.

raid.unsupported.cksumtype

Severity

ERROR

Description

This message occurs when configuration management detects that the disk belongs to a ZCS aggregate, the use of which has been deprecated. The disk is removed from service.

Corrective Action

Install a version of Data ONTAP® that supports the ZCS aggregate, or remove the ZCS aggregate disks.

Syslog Message

The label on %s indicates that the disk belongs to a ZCS aggregate, the use of which has been deprecated.

Parameters

disk_info (STRING): Information about the disk object, including disk name, path, shelf, bay, serial number, vendor, model, RPM, and carrier serial number.

shelf (STRING): Identifier of the shelf where the disk is located.

bay (STRING): Disk bay within the shelf where the disk is located.

vendor (STRING): Name of the vendor of the disk.

model (STRING): Model string of the disk.

firmware_revision (STRING): Firmware revision number of the disk.

serialno (STRING): Serial number of the disk.

disk_type (INT): Type of disk.

disk_rpm (STRING): Rotational speed of the disk, in RPM.

failure_reason (STRING): Text description of the storage error leading to disk failure.

carrier (STRING): Unique ID of the carrier in which the disk is installed.

site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is Local.

raid.verify events

raid.verify.scrub.aborted

Severity

NOTICE

Description

This message occurs when a media scrub is aborted due to a storage layer error. This event is logged in debug builds only.

Corrective Action

(None).

Syslog Message

Abort media scrub on %s because of storage layer error: %s.

Parameters

disk_name (STRING): Name of the disk.

error (STRING): Storage layer error.

raid.vldb events

raid.vldb.notifyUnsuccessful

Severity

NOTICE

Description

This message occurs when RAID fails to notify the M-host that the VLDB(volume location database) is online. The notification is retried automatically when RAID receives VLDB online notification later. To check whether the VLDB process and the mgwd process are up and running, run the "cluster ring show -unitname vldb/mgmt" advanced command.

Corrective Action

(None).

Syslog Message

This message occurs when RAID fails to trigger the VLDB online notification in the M-host.

Parameters

(None).

raid.vol events

raid.vol.disk.add.done

Severity

NOTICE

Description

This event is issued when a disk is added to a aggregate.

Corrective Action

(None).

Syslog Message

Addition of %s to %s %s%s has completed successfully

Parameters

disk_info (STRING): Formatted information of the disk that has been added to the aggregate.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate to which the disk is added.
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.vol.disk.grow.done

Severity

NOTICE

Description

This message occurs when a drive is grown and is consumed by the owning aggregate by increasing its storage space.

Corrective Action

(None).

Syslog Message

%s of %s %s%s has been grown successfully.

Parameters

disk_info (STRING): Formatted information of the drive that was grown.
vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate to which the drive belongs.
shelf (STRING): Shelf identifier where the drive is located.
bay (STRING): Bay within the shelf where the drive is located.
vendor (STRING): Name of the vendor of the drive.
model (STRING): Model string of the drive.
firmware_revision (STRING): Firmware revision number of the drive.
serialno (STRING): Serial number of the drive.
disk_type (INT): Type of drive.
disk_rpm (STRING): Rotational speed of the drive in RPM.
carrier (STRING): Unique ID of the carrier in which the drive is installed.
site (STRING): For a MetroCluster® configuration, indicates the site {Local|Remote} where the drive is located. For other configurations, the site is 'Local'.

raid.vol.failed

Severity

NOTICE

Description

This message occurs when the system marks an aggregate as "failed". This results from multiple disks missing or failing in the aggregate. This aggregate is already offline or not serving data.

Corrective Action

(None).

Syslog Message

%s %s%s: Failed due to multi-disk error.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.vol.giveback

Severity

NOTICE

Description

This message occurs when the system marks an aggregate as "failed" in preparation for sending the aggregate back to its home (owner) node.

Corrective Action

(None).

Syslog Message

Aggregate %s%s: Prepared for giveback operation.

Parameters

owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.vol.hybrid

Severity

INFORMATIONAL

Description

This message occurs when Solid State Disks (SSDs) are requested to be added for the first time to a hybrid_enabled aggregate. Addition can be delayed if SSDs need to be zeroed before the addition. If the system reboots or if any of the added SSDs fails before the SSD zeroing is complete, the aggregate will not be converted to a hybrid aggregate.

Corrective Action

(None).

Syslog Message

%s%s will become a hybrid %s when the SSDs are added to the aggregate.

Parameters

vol_owner (STRING): Owner of the hybrid volume.
vol_name (STRING): Name of the hybrid volume.
vol_type (STRING): Volume type.

raid.vol.inconsist.unmount

Severity

ERROR

Description

This message occurs when the system unmounts an aggregate because of file system inconsistency.

Corrective Action

Run wafliron to clear file system inconsistency. Contact NetApp technical support for assistance.

Syslog Message

Inconsistent %s %s%s is unmounted.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.vol.mirror.degraded

Severity

ALERT

Description

This message occurs when a mirror goes into degraded state as a result of the failure of a plex.

Corrective Action

To resolve this problem, complete the following steps: 1. Identify the problem volume and failed plex from the system logs. 2. Determine the reason for the plex failure, such as disk drive, disk shelf, or loop failure. 3. Replace any faulty components that you discover. If you need assistance, contact NetApp technical support.

Syslog Message

%s %s%s is mirrored and one plex has failed. It is no longer protected by mirroring.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.vol.mirror.normal

Severity

NOTICE

Description

This message occurs when a mirror that was degraded as a result of a plex failure is no longer degraded. It is also displayed in the following scenarios: 1. When an unmirrored aggregate is mirrored 2. After a resynchronization.

Corrective Action

(None).

Syslog Message

%s%s is mirrored and plex is in normal state.

Parameters

owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
aggregate_uuid (STRING): Universal Unique Identifier (UUID) of the aggregate.

raid.vol.mixed.raid.type

Severity

INFORMATIONAL

Description

This message occurs when an aggregate is converted into a mixed RAID type aggregate.

Corrective Action

(None).

Syslog Message

%s%s is now a mixed RAID type aggregate.

Parameters

vol_owner (STRING): Owner of the volume.
vol_name (STRING): Name of the volume.

raid.vol.noMirrorSupport

Severity

ERROR

Description

This event occurs when a mirrored aggregate is detected, but SyncMirror® is not supported.

Corrective Action

Unmirror the aggregate.

Syslog Message

Mirrored %s %s%s is restricted, the system does not support SyncMirror.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.

raid.vol.online.req.giveback

Severity

ERROR

Description

This message occurs when the volume could not be brought online because it is being given back to the partner node.

Corrective Action

Bring the volume or aggregate online after giveback is complete.

Syslog Message

Bringing '%s %s' online failed because giveback is in progress.

Parameters

vol_type (STRING): Whether it is a volume or aggregate that could not be brought online.
vol (STRING): Name of the volume or aggregate.

raid.vol.online.req.nso

Severity

ERROR

Description

This message occurs when the volume cannot be brought online because the aggregate containing the volume is part of an ongoing MetroCluster(tm) negotiated switchover source operation.

Corrective Action

Wait until the switchover is complete, and then bring the volume online by using the "volume online" command. If the "volume online" command fails with a "snapmirror" or "vol move" error, abort the SnapMirror® or volume move operation, and then restart that operation to bring the volume online.

Syslog Message

Could not bring volume '%s' online because a MetroCluster negotiated switchover source operation is in progress.

Parameters

vol (STRING): Name of the volume.

raid.vol.online.req.relocate

Severity

ERROR

Description

This message occurs when the volume cannot be brought online because the aggregate containing the volume is being relocated to another node.

Corrective Action

Bring the volume online after a 'storage aggregate relocation' operation is complete.

Syslog Message

Bringing flexible volume '%s' online failed because 'storage aggregate relocation' operation is in progress.

Parameters

vol (STRING): Name of the volume.

raid.vol.online.req.sb

Severity

ERROR

Description

This message occurs when the volume cannot be brought online because the aggregate containing the volume is part of an ongoing MetroCluster(tm) switchback operation.

Corrective Action

Wait until the switchback is complete, and then bring the volume online by using the "volume online" command. If the "volume online" command fails with a "snapmirror" or "vol move" error, abort the SnapMirror® or volume move operation, and then restart that operation to bring the volume online.

Syslog Message

Could not bring volume '%s' online because a MetroCluster switchback operation is in progress.

Parameters

vol (STRING): Name of the volume.

raid.vol.read.latency.high

Severity

NOTICE

Description

This message occurs when the time taken for the completion of a WAFL® disk read operation is more than the specified time limit. This message is logged only on the debug kernel and is used for diagnostic purposes.

Corrective Action

(None).

Syslog Message

%s %s%s, vbn #%llu read latency is higher than the specified time limit of %d seconds.

Parameters

vol_type (STRING): Volume type.
vol_owner (STRING): Owner of the aggregate.
vol_name (STRING): Name of the aggregate.
read_vbn (LONGINT): Volume Block Number of the first block in the read block range that encountered high latency.
time_limit (INT): Time limit, in seconds, that was specified for completion of the read operation.

raid.vol.reparity.issue

Severity

NOTICE

Description

This message occurs when an aggregate has a reparity issue involving NVRAM. Data ONTAP® takes appropriate recovery actions, as described in additional logged events.

Corrective Action

(None).

Syslog Message

%s %s%s has %s.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
issue (STRING): Type of issue.

raid.vol.replay.nvram

Severity

INFORMATIONAL

Description

This event is issued when one or more volume needs nvram replay

Corrective Action

(None).

Syslog Message

Performing raid replay on volume(s)

Parameters

(None).

raid.vol.root.noMirrorSupport

Severity

ERROR

Description

This message occurs when a mirrored root aggregate is detected, but the system does not support SyncMirror®.

Corrective Action

Unmirror the aggregate.

Syslog Message

%s aggregate is mirrored, but the system does not support SyncMirror.

Parameters

owner (STRING): Owner of the aggregate.

raid.vol.rootConflictRestrict

Severity

NOTICE

Description

This message occurs when the system forcibly restricts a conflicting root volume, based on a comparison of the name and creation times. This situation could occur if the high-availability (HA) mailbox mirror voting information is lost, following recovery from an HA disaster.

Corrective Action

(None).

Syslog Message

Volume %s%s is being restricted due to a root volume conflict with %s%s.

Parameters

vol_owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
rootvol_owner (STRING): Owner of the root aggregate.
rootvol (STRING): Name of the root volume.

raid.vol.rootRestrictLessRecent

Severity

ERROR

Description

This message occurs when the system detects multiple root volumes at boot time. Only one root volume should exist per system. A root volume with a less recent creation time is restricted by default. This situation could occur in an upgrade/revert scenario whereby stale/old volumes created on the same system are detected.

Corrective Action

If the system default is not the intended root volume, you can switch to the intended root volume.

Syslog Message

Volume %s%s is being restricted based on its less recent creation time.

Parameters

rootvol_owner (STRING): Owner of the restricted volume.
rootvol (STRING): Name of the restricted root volume.

raid.vol.rootSelectMostRecent

Severity

ERROR

Description

This message occurs when the system detects multiple root volumes at boot time. Only one root volume should exist per system and the system selects the one with the most recent creation time by default. This situation could occur in an upgrade/revert scenario whereby stale/old volumes created on the same system are detected.

Corrective Action

If the system default is not the intended root volume, you can switch to the intended root volume.

Syslog Message

Volume %s%s is being selected as the default root volume based on its most recent creation time.

Parameters

rootvol_owner (STRING): Owner of the (default) selected volume
rootvol (STRING): Name of the (default) selected root volume

raid.vol.state.changed

Severity

NOTICE

Description

This message occurs the when system detects that the RAID state of an aggregate is changed to either offline or restricted state.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vol_type (STRING): Volume type.
vol_uuid (STRING): UUID of the aggregate.
vol (STRING): Name of the aggregate.
state (STRING): Aggregate state (offline or restricted).

raid.vol.state.online

Severity

NOTICE

Description

This event occurs when the RAID state of an aggregate is moved to the online state.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vol_type (STRING): Volume type.
vol_uuid (STRING): UUID of the aggregate.
vol (STRING): Name of the aggregate.

raid.vol.tooBig.allp.reminder

Severity

ERROR

Description

This message occurs when the total size of all aggregate plexes is too large.

Corrective Action

(Call support).

Syslog Message

The sum of all aggregate plex sizes is %s, exceeding the %s maximum. Contact NetApp technical support.

Parameters

volsizes (STRING): Total size of volumes, excluding the size of all mirrored plexes.
limit (STRING): Maximum capacity, excluding total size of mirrored plexes.

raid.vol.tooBig.allv.reminder

Severity

ALERT

Description

This message occurs when the sum of all volume sizes is too large for mirroring.

Corrective Action

Physically migrate this aggregate to a node with a larger size limit. If you need assistance, contact technical support.

Syslog Message

The sum of all aggregate sizes is %s, exceeding the %s maximum. Contact NetApp technical support.

Parameters

volsizes (STRING): Total of mirrored volume sizes.
limit (STRING): Maximum total of mirrored volume sizes.

raid.vol.tooBig.ha.reminder

Severity

ERROR

Description

This message occurs when the sum of all aggregate sizes is larger than half of the size allowed in a high availability (HA) pair. If the sum of the sizes for this node and its partner exceeds the limit, takeover might fail.

Corrective Action

Ensure that the sum of all aggregate sizes on this node and its partner does not exceed the limit. Be careful when creating new aggregates and when adding disks to existing volumes and aggregates not to exceed the limit for both nodes in the HA pair. You might need to remove or destroy some aggregates if the limit is exceeded. Disable HA failover using the 'cf disable' command if you cannot bring the sum of all sizes on both nodes below the limit.

Syslog Message

The sum of all aggregate sizes is %s, exceeding %s (half of the maximum in an HA pair). If the sum of all aggregate sizes on this node and its partner exceeds the %s maximum, takeover might fail.

Parameters

volsizes (STRING): Total of mirrored aggregate sizes.
halfpoint (STRING): Maximum total of mirrored sizes allocated to one node in the HA pair.
limit (STRING): Maximum limit of mirrored aggregate sizes.

raid.vol.tooBig.offline

Severity

ALERT

Description

This message occurs when the aggregate cannot be brought online because it is too large.

Corrective Action

Physically migrate this aggregate to a node with a larger size limit. If you need assistance, contact technical support.

Syslog Message

%s %s%s cannot be brought online because its size, %s, is larger than the maximum allowed. Contact NetApp technical support.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.
volsize (STRING): Actual volume size.
limit (STRING): Maximum volume size.

raid.vol.tooBig.reminder

Severity

ERROR

Description

This event is issued as a reminder that the aggregate size is too large.

Corrective Action

(Call support).

Syslog Message

%s size for %s%s %s exceeds limit %s

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
volsize (STRING): The actual volume size
limit (STRING): The maximum volume size

raid.vol.undestroy.info.missing

Severity

INFORMATIONAL

Description

This event is generated when undestroy info raidarea object is missing from one or more disk of a volume or an aggregate.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk_info (STRING): The formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
carrier (STRING): Unique ID of the carrier in which the disk is installed.
site (STRING): For a MetroCluster(tm) configuration, indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

raid.vol.unprotected.remotesyncmirror

Severity

ALERT

Description

This event is issued when we detect a mirrored aggregate with a plex that is not online. In a remotesyncmirror configuration the aggregate won't be available if the plex is not accessible.

Corrective Action

Bring online the plex that is now offline.

Syslog Message

%s %s%s is mirrored and one plex is not online. The volume will not be available if a takeover occurs and the online plex is not accessible to the partner node.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the affected aggregate.
vol (STRING): Name of the aggregate.

raid.vol.volinfo.mismatch

Severity

EMERGENCY

Description

This message occurs when a mismatch is detected for both copies of the volinfo block during an attempt to mount a SyncMirror aggregate. Data corruption is suspected. The aggregate cannot be mounted. The volinfo block is the superblock in the WAFL® file system. Two copies of the volinfo block are stored in blocks 1 and 2 of the file system. The two copies are the same except when there is an unclean shutdown of the file system, for example, after a panic. In a SyncMirror aggregate, all used blocks are mirrored in two

plexes. Volinfo blocks are written so that either both copies of block 1 are the same in two plexes, or both copies of block 2 are the same in two plexes at any point in time. In an unexpected case when that is not true, it is not possible to determine which copy of the volinfo block points to a consistent state of the file system. The message describes a mismatch for only one copy of the volinfo block. A pair of messages is always issued to describe the mismatch for both copies of the volinfo block, because a mismatch for only one copy is not an unusual event.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s %s%s: volinfo blocks (VBN %llu) do not match in two plexes. %s: disk %s, magic 0x%x, CP count %d, checksum %u; %s: disk %s, magic 0x%x, CP count %d, checksum %u.

Parameters

vol_type (STRING): Volume type.
owner (STRING): Owner of the aggregate.
vol (STRING): Name of the aggregate.
vbn (LONGINT): Volume block number of the volinfo block (1 or 2).
plex1 (STRING): First plex name.
disk1 (STRING): Name of the disk in the first plex.
magic1 (INT): Identifier of the block type in the first plex. It should be 0xdab8fbab for the volinfo block.
CP_count1 (INT): Consistency point count in the first plex.
checksum1 (INT): Block checksum in the first plex.
plex2 (STRING): Second plex name.
disk2 (STRING): Name of the disk in the second plex.
magic2 (INT): Identifier of the block type in the second plex. It should be 0xdab8fbab for the volinfo block.
CP_count2 (INT): Consistency point count in the second plex.
checksum2 (INT): Block checksum in the second plex.

raid.vol.write.latency.high

Severity

NOTICE

Description

This message occurs when the time taken for the completion of a WAFL® tetris write operation is more than the specified time limit. This message is logged only on the debug kernel and is used for diagnostic purposes.

Corrective Action

(None).

Syslog Message

%s %s%s, vbn #%llu write latency is higher than the specified time limit of %d seconds.

Parameters

vol_type (STRING): Volume type.
vol_owner (STRING): Owner of the aggregate.
vol_name (STRING): Name of the aggregate.
write_vbn (LONGINT): Volume Block Number of the first block in the write block range that encountered high latency.
time_limit (INT): Time limit, in seconds, that was specified for completion of the write operation.

raid.warn events

raid.warn.no.sparecore.disk

Severity

ERROR

Description

This message occurs when there are no suitable spare disks left on the node to use for a potential future coredump operation.

Corrective Action

Assign unowned disks to this node by using the "storage disk assign" command. If there are no unowned disks, physically add more spare disks and assign them to this node.

Syslog Message

No suitable spare disks available on the node for a potential future coredump operation.

Parameters

(None).

raidlm events

raidlm.cannotmakeprogress events

raidlm.cannotMakeProgress

Severity

ALERT

Description

This message occurs when a system does not contain enough spares to correct existing disk failures or misconfigurations. This message is only seen on systems containing disk carriers capable of holding more than one disk. When this message occurs, manual intervention is required because Data ONTAP® cannot automatically correct the existing issues with the system's disk configuration.

Corrective Action

To correct this issue on systems that contain carriers with multiple disks, try the following (in the specified order): (1) Assign any unassigned disks that are contained within a multidisk carrier. (2) Add multidisk carriers. (3) If a replacement carrier is available, do the following: a) Fail ALL disks within the carrier. Do not remove a multidisk carrier that contains non-failed disks; doing so results in system degradation and might result in system failure. b) Wait until the disk's amber Attention LEDs stop flashing and are lit continuously. Do not remove a carrier while the shelf OPS panel is alternating between the shelf ID and the Attention Code H1, or while the disks within the carrier are flashing their amber Attention LEDs. c) Replace the carrier. (4) Reassign partner spare disks in the HA configuration. (5) If the problem persists, call NetApp technical support.

Syslog Message

Disk %s cannot be evacuated or copied from a multidisk carrier. The system does not contain spares that are suitable for the copy operation.

Parameters

disk (STRING): Name of the disk in the carrier.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

raidlm.carrier events

raidlm.carrier.copy.abort

Severity

NOTICE

Description

This message occurs when Data ONTAP® determines that an ongoing disk copy operation is no longer required and has stopped the disk copy previously started for this disk.

Corrective Action

(None).

Syslog Message

Disk %s copy from carrier %s is no longer needed. Operation stopped.

Parameters

source_disk (STRING): Name of the disk that was being copied.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

raidlm.carrier.copy.start

Severity

NOTICE

Description

This message occurs when the system detects an undesirable RAID layout and Data ONTAP® is attempting to correct the issue by copying a disk to an available spare. The issue is that two disks from the same carrier are part of a single RAID group. If Data ONTAP does not copy one of the disks to an available spare disk, the RAID group would become double degraded if the carrier is removed accidentally. Such an action would result in significant system performance issues and the possibility of exposing the system to data loss.

Corrective Action

(None).

Syslog Message

Disk %s will be copied to disk %s to correct the RAID layout.

Parameters

source_disk (STRING): Name of the disk being copied.
target_disk (STRING): Name of the copy destination disk.
owner (STRING): RAID group owner.
raid_group_name (STRING): RAID group name.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

raidlm.carrier.evac.abort

Severity

NOTICE

Description

This message occurs when Data ONTAP® determines that an ongoing carrier evacuation operation is no longer required and has stopped the disk copy previously started for this disk.

Corrective Action

(None).

Syslog Message

Copy operation for disk %s no longer needed. Operation stopped.

Parameters

disk (STRING): Name of the disk in the carrier.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier in which the disk is installed.

raidlm.carrier.evac.start

Severity

NOTICE

Description

This message occurs when a carrier evacuation operation is initiated in a multidisk carrier containing at least one failed disk. Do NOT remove the carrier until the carrier evacuation operation is complete. The carrier evacuation operation is not complete until both of the following occur: the shelf OPS panel stops alternating between the shelf ID and Attention Code H1, and all amber Attention LEDs on the disks stop flashing and are lit continuously.

Corrective Action

(None).

Syslog Message

Disk %s is being copied as part of the carrier evacuation process (Shelf Attention Code: H1). Do not remove the carrier until the disk copy is complete.

Parameters

disk (STRING): Name of the disk in the carrier.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier being evacuated.

raidlm.carrier.splitOwner

Severity

ERROR

Description

This message occurs when disks within a multidisk carrier belong to different owners. This situation might occasionally occur in takeover or giveback scenarios (partial giveback).

Corrective Action

All disks within a multidisk carrier should belong to one owner. If the system is in takeover mode, the situation might correct itself when the partner node recovers, or by repeating the giveback. If the system is not in takeover mode, then do the following: (1) Determine which owner should own the disks. (2) If the disk is a spare, assign it to the correct owner. (3) If the disk is not a spare, copy the data to another disk.

Syslog Message

Disk %s belongs to a different owner than other disks within the carrier.

Parameters

disk (STRING): Name of the disk in the carrier.
shelf (STRING): Disk shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where the disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk.
disk_rpm (STRING): Rotational speed of the disk, in RPM.
carrier (STRING): Unique ID of the carrier.

rbac events

rbac.spuser events

rbac.spuser.role.notfound

Severity

ERROR

Description

This message occurs when the role that was earlier associated with the service-processor application user in a previous release was deleted in the current release and is not found during a revert to a previous release.

Corrective Action

Re-create the deleted role for the service-processor application user using the command "security login role create".

Syslog Message

Role "%s" for service-processor user "%s" was not found on SVM "%s".

Parameters

role_name (STRING): Name of the role which was deleted.
user_name (STRING): Name of the user for which the role modification failed.
vserver_name (STRING): Name of the SVM.

rdb events

rdb.corruption events

rdb.corruption.reported

Severity

NOTICE

Description

This message occurs when the cluster management Data Replication Module determines that the node's local replica set is corrupted. Automatic recovery of this data will be attempted.

Corrective Action

(None).

Syslog Message

Corruption reported in the local database of Data Replication Module %s, error: %s.

Parameters

unit (STRING): The unit that is reporting corruption.
message (STRING): Error message.

rdb.env events

rdb.env.IOFailure

Severity

ALERT

Description

This message occurs when the cluster management Data Replication Module determines that I/O operations on the node's mroot filesystem are failing. This could indicate that the mroot filesystem is full, not mounted, or is encountering other error conditions.

Corrective Action

Contact NetApp technical support for assistance with the mroot verification and recovery procedures.

Syslog Message

Error encountered in mroot I/O: %s.

Parameters

message (STRING): Error message.

rdb.env.processDuplicate

Severity

ERROR

Description

This message occurs when multiple conflicting instances of the management subsystem processes are executing. The situation was safely detected, but it is necessary to understand why it occurred. Normal system startup and operation should ensure that only one of each process type executes on any node. This can occur when an operator inadvertently runs a second instance by hand under the command shell.

Corrective Action

Verify that all the cluster management processes are running using the diagnostic command 'cluster ring show.' Verify that only one of each is running on the node by using the 'ps' command in the command shell. If this event continues to occur, or if there is any question as to why the extra process was started, then contact NetApp technical support to investigate.

Syslog Message

Multiple processes executing, detected by advisory locking violation: %s.

Parameters

message (STRING): Error message.

rdb.env.replicaCorrupt

Severity

ALERT

Description

This message occurs when the cluster management Data Replication Module determines that the node's local replica set is corrupted. If the damage extends beyond the replica set, it might be necessary to recover the mroot filesystem.

Corrective Action

Contact NetApp technical support for assistance with the Data Replication Module and mroot filesystem verification and recovery procedures.

Syslog Message

Corruption in the local database of Data Replication Module: %s

Parameters

message (STRING): Error message.

rdb.env.sitelistInvalid

Severity

ALERT

Description

This message occurs when the cluster management Data Replication Module detects an inconsistency in the local cluster configuration (the 'sitelist'). This sitelist is rejected, but the situation must be evaluated with the help of NetApp technical support. This usually occurs as a result of a procedural error, for example, a repurposed node without a wipeconfig, a problem with a controller replacement, a conflict with the node's 'setup' parameters, and so on.

Corrective Action

Contact NetApp technical support to investigate the situation.

Syslog Message

The sitelist content does not match the node environment: %s.

Parameters

message (STRING): Error message.

rdb.ha events

rdb.ha.active

Severity

NOTICE

Description

This message occurs when the management process goes online as the master under two-node 'cluster HA' failover. Any changes to replicated data are synchronized with the peer node after it becomes available.

Corrective Action

(None).

Syslog Message

Entering HA-Active: Going online as active master in a high-availability (HA) configuration.

Parameters

(None).

rdb.ha.mboxError

Severity

ALERT

Description

This message occurs when the system detects a problem with the 'cluster HA' on-disk mailboxes, resulting in failover being currently disabled. No data is at risk, but the situation should be addressed. Note: The 'cluster HA' configuration provides a bidirectional failover mechanism for the management processes in a two-node cluster.

Corrective Action

First ensure that both nodes are booted and operational. Then verify that all the cluster management processes are running on both nodes using the diagnostic command 'cluster ring show'. If there are any problems with this, contact NetApp technical support for guidance. Take the following actions: - Use the 'cluster ha modify -configure false' command to unconfigure high availability (HA). - Use the 'cluster ha modify -configure true' command to reconfigure HA. - Use the 'cluster ha show' diagnostic command to verify that the system is fully configured (both the front-end and on-disk mailboxes should both be 'true').

Syslog Message

Bidirectional failover under the 'cluster HA' configuration is not currently functional due to problem with the on-disk mailboxes.

Parameters

(None).

rdb.ha.synchronized

Severity

NOTICE

Description

This message occurs when the management process synchronizes its replicated data with its peer node. Bidirectional failover has been reestablished in a 'cluster HA' configuration.

Corrective Action

(None).

Syslog Message

Entering HA-Normal: Synchronized with peer in a high-availability (HA) configuration.

Parameters

(None).

rdb.internal events

rdb.internal.error

Severity

ALERT

Description

This message occurs when the cluster management Data Replication Module encounters an internal error, possibly causing the process to exit. The process should restart automatically, with full service restored.

Corrective Action

Verify that all the cluster management processes are running using the diagnostic command 'cluster ring show.' If not, contact NetApp technical support.

Syslog Message

Internal program error encountered: %s.

Parameters

message (STRING): Error message.

rdb.node events

rdb.node.starvation

Severity

ERROR

Description

This message occurs when the replicated database (RDB) detects CPU starvation on this node, potentially causing it to leave cluster quorum.

Corrective Action

Reduce the incoming traffic to this node by migrating network interfaces (LIFs) or moving volumes, as necessary.

Syslog Message

CPU starvation detected in the RDB.

Parameters

(None).

rdb.open events

rdb.open.unit.error

Severity

EMERGENCY

Description

This message occurs when the cluster management data replication module encounters an error and fails to open the unit, causing the process to exit. The process should restart automatically with full service restored.

Corrective Action

Verify that all the units are operational and using the "cluster ring show" diagnostic command. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Module "rdb_module::module_init": failed to open unit "%s" -and is exiting the process to force a restart.

Parameters

unit (STRING): Unit that failed to open.

rdb.recovery events

rdb.recovery.failed

Severity

EMERGENCY

Description

This message occurs when the cluster management Data Replication Module could not automatically repair its local replicas.

Corrective Action

(Call support).

Syslog Message

Error: %s. Unable to recover the local database of Data Replication Module: %s.

Parameters

message (STRING): Error message.
unit (STRING): The unit that failed recovery.

rdb.recovery.started

Severity

NOTICE

Description

This message occurs when the cluster management Data Replication Module starts automatic recovery attempts.

Corrective Action

(None).

Syslog Message

Automatic recovery of Data Replication Module %s started.

Parameters

unit (STRING): The unit that is going to start recovery.

rdb.recovery.succeeded

Severity

NOTICE

Description

This message occurs when the cluster management Data Replication Module determines that an automatic recovery was successful.

Corrective Action

(None).

Syslog Message

Successful recovery of the local database of Data Replication Module %s.

Parameters

unit (STRING): The unit that finished recovery.

rdb.sql events

rdb.sql.upgrade.failed

Severity

ERROR

Description

This message occurs when the cluster management Data Replication Module could not upgrade its database from RDB to SQL.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

Error: %s. Unable to upgrade the local database from RDB to SQL of Data Replication Module: %s.

Parameters

message (STRING): Error message.
unit (STRING): Unit that failed the upgrade.

rdb.sql.upgrade.succeeded

Severity

NOTICE

Description

This message occurs when the cluster management Data Replication Module upgrades its database from RDB to SQL.

Corrective Action

(None).

Syslog Message

Successful upgrade of the local database from RDB to SQL of Data Replication Module: %s. Duration: %s sec Tables: %llu Records: %llu

Parameters

unit (STRING): Unit that finished the upgrade.
duration (STRING): Duration of the upgrade in seconds.
tables (LONGINT): Number of tables processed.
records (LONGINT): Number of records processed.

rdma events

rdma.rlib events

rdma.rlib.adv.failed

Deprecated

Deprecated as of ONTAP 9.1 because this platform is no longer supported.

Severity

ERROR

Description

This message occurs when the system fails to start the advertisement service for the high-availability (HA) interconnect.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to start the advertisement service on HA interface %s.

Parameters

if_name (STRING): Name.

rdma.rlib.config.if.failed

Deprecated

Deprecated as of ONTAP 9.1 because this platform is no longer supported.

Severity

ERROR

Description

This message occurs when configuration for the high-availability (HA) interface fails.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to configure the HA interface %s.

Parameters

if_name (STRING): Interface name.

rdma.rlib.get.if.failed

Severity

ERROR

Description

This message occurs when the system cannot find high availability (HA) capable interface.

Corrective Action

Contact NetApp technical support.

Syslog Message

No HA Interconnect capable interface was found.

Parameters

(None).

rdma.rlib.listen.failed

Severity

ERROR

Description

This message occurs when the system fails to start the listener for the HA interface.

Corrective Action

Verify that link status is up by running the "metrocluster interconnect adapter show" command. Also check the FC-VI connectivity between DR partners. If the issue persists, contact NetApp technical support.

Syslog Message

Failed to start listener for the HA interconnect on interface %s.

Parameters

if_name (STRING): Name.

rdma.rlib.queue.full

Severity

NOTICE

Description

This message occurs when the send or receive queue of a Queue Pair (QP) is full.

Corrective Action

(None).

Syslog Message

%s queue of QP %s is full.

Parameters

send_or_recv (STRING): Send or receive queue of a QP.
qp_name (STRING): QP name.

rdmalib events

rdmalib.abort events

rdmalib.abort.nv.reconnect

Severity

NOTICE

Description

This message occurs when a remote NVLOG operation is aborted due to an error, which is logged here.

Corrective Action

(None).

Syslog Message

Interconnect channel (%s) encountered error (%s), causing the remote NVLOG to be aborted.

Parameters

channel (STRING): Interconnect channel.
err (STRING): Error that caused the abort.

rdmalib.duplicateid events

rdmalib.duplicateId

Severity

ALERT

Description

This message occurs when the local node system identifier matches the partner node's system identifier.

Corrective Action

Contact NetApp technical support.

Syslog Message

Interconnect : Partner ID %u is the same as our id.

Parameters

id (INT): System Id

rdmalib.multichan events

rdmalib.multichan.count

Severity

NOTICE

Description

This message occurs when this node's high-availability (HA) partner reports an update on the number of interconnect channels (multichan count) in use.

Corrective Action

(None).

Syslog Message

Multichan count "(%u)" in use on HA partner is notified via path "%s".

Parameters

count (INT): Multichan count in use on HA partner.
notify_path (STRING): Path where this event is generated.

rdmalib.rcm events

rdmalib.rcm.configMissing

Severity

NOTICE

Description

This message occurs when the configuration of the high-availability (HA) interface cannot be completed due to a missing IP address.

Corrective Action

Verify that the High Availability interconnect card is present on the system and is cabled correctly. If a capable interface is found and the issue persists, contact NetApp technical support.

Syslog Message

HA configuration is missing, error %d.

Parameters

error (INT): Error code of the missing configuration.

recover events

recover.abort events

recover.abort.ROOLR

Severity

NOTICE

Description

This event is generated when restore has been aborted and currently ROOLR (Read Only On Line Replica) is running on the Filer. This might be because of the user terminating restore or might be because of bad tape device

Corrective Action

(None).

Syslog Message

The abort event, %s, is just notified.

Parameters

errmsg (STRING): The error message is notified

recover.abort.STSP

Severity

NOTICE

Description

This event is generated when a recover has been aborted which was started by VERITAS NBU STSP Protocol. This might be because of the user terminating restore or might be because of bad tape device

Corrective Action

(None).

Syslog Message

The abort event, %s, is just notified.

Parameters

errmsg (STRING): The error message is notified

reg events

reg.cookie events

reg.cookie.null

Severity

ERROR

Description

This message occurs when allocation of cookies for traversing all keys under a prefix fails. An EFAULT error indicates that the cause is an empty registry tree. An ENOTSUPP error indicates that the prefix entered might not be supported on a vFiler unit. An ENOMEM error indicates that the system is running low on memory.

Corrective Action

For an EFAULT error, check the prefix for spelling errors. For an ENOTSUPP error, try running the command on physical system, rather than a virtual system. For an ENOMEM error, close all applications that are consuming memory, as needed. If the problem persists,contact NetApp technical support

Syslog Message

registry: Allocation of cookie for traversing all keys under the prefix %s, failed at function %s. Error number %d: %s.

Parameters

location (STRING): Location in the registry code where the failure occurred.
prefix (STRING): Name of the prefix that was passed as an argument to the function.
errorno (INT): Internal error message number.
errormsg (STRING): Internal error message description.

reg.errno events

reg.errno.addAfterReadable

Severity

NOTICE

Description

This event is issued when Data ONTAP(tm) cannot add an errno-style error to the list of errors. The error must be added before the readable version is generated. No action by the system administrator is needed.

Corrective Action

(None).

Syslog Message

registry: ignoring attempt to add an error (%d) after errors_readable was called.

Parameters

errnoval (INT): The numerical value of the error.

reg.errno.addInvalid

Severity

NOTICE

Description

This event is issued when Data ONTAP(tm) cannot add an errno-style error to the list of errors. The error number must be non-zero or the error string must be non-NULL. No action by the system administrator is needed.

Corrective Action

(None).

Syslog Message

registry: in errors_add_real, errnoval must be non-zero or str must be non-NULL.

Parameters

(None).

reg.file events

reg.file.createFail

Severity

ALERT

Description

This message occurs when the system registry file could not be created.

Corrective Action

Use the 'df' nodeshell command to check available space on the root volume. If the root volume is full, free some space on the root volume and retry the operation. If the root volume is not full, the system might be running low on memory. Contact NetApp technical support for further assistance.

Syslog Message

registry: Cannot create %s file. %s. e.g. Cannot create /etc/registry.local.0 file.

Parameters

file (STRING): Name of the file.
errormsg (STRING): Internal error message explaining why the file could not be created.

reg.file.linkFail

Severity

ERROR

Description

Could not create a hard link between system registry files.

Corrective Action

Check whether the source file exists. If the file doesn't exist, contact NetApp technical support.

Syslog Message

registry: Cannot link %s to %s. %s.

Parameters

sourcefile (STRING): Name of the source file.
destfile (STRING): Name of the destination file.
errormsg (STRING): Internal error message explaining why the hard link could not be created.

reg.file.openFail

Severity

ERROR

Description

Could not open a system registry file.

Corrective Action

Check whether the file exists. If it exists, check the file permissions. Make sure it has read and write permissions.

Syslog Message

registry: Cannot open the %s file. %s.

Parameters

file (STRING): Name of the file.
errormsg (STRING): Internal error message explaining why the file could not be opened.

reg.file.renameFail

Severity

ERROR

Description

This message occurs when the system registry file failed to update. The temporary copy of the registry could not be renamed to the active registry file name.

Corrective Action

Contact NetApp technical support.

Syslog Message

registry: Cannot rename %s to %s. %s. e.g. An error occurred trying to rename /etc /registry.bck.new2 to /etc/registry.bck

Parameters

sourcefile (STRING): Name of the source file.
destfile (STRING): Name of the destination file.
errormsg (STRING): Internal error message explaining why the rename could not be completed.

reg.file.statsFail

Severity

ERROR

Description

Could not get file statistics of the system registry file.

Corrective Action

Check whether the file exists. If it exists, check the file permissions. Make sure that it has read and write permissions.

Syslog Message

registry: Cannot get file statistics of %s file. %s.

Parameters

file (STRING): Name of the file.
errormsg (STRING): Internal error message explaining why the file statistics could not be obtained.

reg.file.updateFail

Severity

ERROR

Description

This message occurs when the ONTAP®software could not update the system registry file. Updates are made to the registry files to save the changes to the configuration information. Low disk space and low memory can cause this issue.

Corrective Action

Use the 'df' nodeshell command to check available space on the root volume. If the root volume is full, free some space on the root volume and retry the operation. If the root volume is not full, the system might be running low on memory. Contact NetApp technical support for further assistance.

Syslog Message

registry: Cannot update %s file.

Parameters

file (STRING): Name of the file.

reg.file.writeFail

Severity

ERROR

Description

Could not write to a system registry file.

Corrective Action

Use the 'df' command to check available space on the the root volume. If the root volume is full, free some space on the root volume. If the root volume is not full, the system might be running low on memory. Contact NetApp technical support.

Syslog Message

registry: Cannot write to %s file. %s.

Parameters

file (STRING): Name of the file.
errormsg (STRING): Internal error message explaining why data could not be written to the file.

reg.file.writeMismatch

Severity

ERROR

Description

Could not write completely to a system registry file.

Corrective Action

Use the 'df' command to check available space on the the root volume. If the root volume is full, free some space on the root volume. If the root volume is not full, the system might be running low on memory. Contact NetApp technical support.

Syslog Message

registry: Cannot write completely to to %s file; expected %d, but wrote %d. %s.

Parameters

file (STRING): Name of the file.
actualbytes (INT): Number of bytes that were supposed to be written.
written (INT): Number of bytes that were actually written.
errormsg (STRING): Internal error message explaining why data could not be written completely to the file.

reg.key events

reg.key.invalid

Severity

ERROR

Description

This message occurs when ONTAP® software cannot access the registry because the key is not valid.

Corrective Action

Use a valid key.

Syslog Message

registry: Invalid key %s: %s

Parameters

key (STRING): Registry key that is not valid.
reason (STRING): Reason the key is not valid.
accessID (STRING): Shows how the registry was accessed.

reg.key.null

Severity

ERROR

Description

This message occurs when the value of key is NULL while the registry set is being implemented on a vFiler(tm) key.

Corrective Action

(None).

Syslog Message

vfiler_registry_set: Set of key=%s received NULL for value.

Parameters

keyName (STRING): Name of the key.

reg.options events

reg.options.cf.change

Severity

NOTICE

Description

This message occurs when an option is changed on one cluster node but applies to both the local and partner when the cluster is in takeover mode. The result is that the partner's setting will be overridden during takeover.

Corrective Action

(None).

Syslog Message

Option %s changed on one cluster node.

Parameters

name (STRING): Name of the option

reg.options.cf.mismatch

Severity

ERROR

Description

This message occurs during takeover processing when Data ONTAP(tm) discovers that a mismatch exists between the value of an option on the local node and an option on the partner node.

Corrective Action

(None).

Syslog Message

Option %s is not the same as on the partner node

Parameters

name (STRING): Name of the option

reg.options.nullCookie

Severity

ERROR

Description

This message occurs when an internal error occurs during the processing of the options portion of the registry.

Corrective Action

Contact NetApp technical support.

Syslog Message

registry: Unable to find the option in skiplist datastructure, but the option code is present in ONTAP. Error is %s.

Parameters

error (STRING): Internal error code.

reg.options.overrideRc

Severity

ERROR

Description

This message occurs when Data ONTAP(tm) (or an administrator) sets an option to be a value different than the value in /etc/rc. At the next reboot, the line in /etc/rc will override this setting and a reg.options.overrideRegistry message will be sent.

Corrective Action

If you want the new option to be persistent, check the /etc/rc file for this key and remove it.

Syslog Message

Setting option %s to '%s' conflicts with /etc/rc that sets it to '%s'.

Parameters

name (STRING): Name of the option
newValue (STRING): New value for the option
oldValue (STRING): Existing value in /etc/rc

reg.transaction events

reg.transaction.commitFail

Severity

ERROR

Description

This message occurs when ONTAP® cannot commit a registry transaction. A system registry transaction is used to update a group of registry keys simultaneously.

Corrective Action

Check to see whether the system is running low on memory. Contact NetApp technical support.

Syslog Message

registry: Cannot commit transaction in '%s'. %s

Parameters

location (STRING): Location where the failure occurred.
errormsg (STRING): Internal error message explaining why the transaction commit failed.

reg.transaction.createFail

Severity

ERROR

Description

This message occurs when ONTAP® software cannot create a registry transaction. A system registry transaction is used to update a group of registry keys simultaneously.

Corrective Action

Contact NetApp technical support.

Syslog Message

registry: Cannot create transaction. Operation: %s.

Parameters

operation (STRING): Registry operation involved in the failure.

reg.transaction.setkeyFail

Severity

ALERT

Description

This message occurs when ONTAP® cannot set a registry key to a value within a registry transaction.

Corrective Action

Because the transaction failed, modify the registry key manually. Follow the steps in KB article
https://kb.netapp.com/support/index?page=content&actp=LIST&id=S:1015964.

Syslog Message

registry: Transaction cannot set "%s" to "%s".

Parameters

    key (STRING): Registry key that should have been changed.
    value (STRING): Value that the key should have been changed to.

repl events

repl.archival events

repl.archival.ts.failure

Severity

NOTICE

Description

This message occurs when archival tier scan fails for a cloud snapshot. The cloud snapshot will not be scanned for tiering.

Corrective Action

(None).

Syslog Message

Archival tier scan failure for cloud snapshot "%s" on endpoint %s of volume dsid %llu.

Parameters

snapshot_id (STRING): Snapshot UUID.
ep_uuid (STRING): Endpoint UUID.
volume_dsid (LONGINT): Volume dsid.

repl.autol2l events

repl.autol2l.unsupported.configuration

Severity

INFORMATIONAL

Description

This message occurs when the replication destination engine encounters an unsupported configuration during a transfer with storage efficiency.

Corrective Action

(None).

Syslog Message

Unsupported configuration for relationship '%s'.

Parameters

transferId (STRING): UUID of the SnapMirror transfer that has the unsupported configuration.

repl.cg events

repl.cg.item.limit.exceeded

Severity

ERROR

Description

This message occurs when the number of Consistency Group Items involved in a SnapMirror® Granular Sync relationship exceeds its limit in the system.

Corrective Action

Load balance the system to have fewer Consistency Group Items.

Syslog Message

The number of CG Items involved in a SnapMirror Granular Sync relationship exceeded.

Parameters

(None).

repl.cg.limit.exceeded

Severity

ERROR

Description

This message occurs when the number of Consistency Groups(CG) involved in a SnapMirror® Granular Sync relationship exceeds its limit in the system.

Corrective Action

Load balance the system to have fewer Consistency Groups.

Syslog Message

The number of CGs involved in a SnapMirror Granular Sync relationship exceeded.

Parameters

(None).

repl.checker events

repl.checker.block.missing

Severity

EMERGENCY

Description

This message occurs when a SnapMirror® check command detects a missing block on a SnapMirror® destination volume and the volume might be in an inconsistent state that should be fixed as soon as possible.

Corrective Action

Run WAFL check or wafliron as soon as possible to clear this inconsistency and rebuild from the source or resynchronize. If the block is found to be in a snapshot by running 'vol vbncheck' command, deleting the

snapshot should remove the inconsistency. Please contact NetApp technical support for more options.

Syslog Message

Snapmirror check on volume %s has detected a missing block at volume block number %llu. It is strongly recommended that you run WAFL check or wafliron to clear this inconsistency. Failure to do so might lead to node panic at any time.

Parameters

volname (STRING): Volume name
vvbn (LONGINT): Virtual volume block number of the missing block.

repl.ckpt events

repl.ckpt.update.generation

Severity

INFORMATIONAL

Description

This message occurs to record new checkpoint generations subsequent to the first. Transfer will update the current checkpoint if the new checkpoints are smaller.

Corrective Action

(None).

Syslog Message

Volume '%s%s%s' (DSID %llu) received a new checkpoint generation: %llu, current checkpoint generation: %llu.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
newCkpt (LONGINT): New checkpoint generation received.
oldCkpt (LONGINT): Existing checkpoint generation.

repl.cloud events

repl.cloud.incons.buf

Severity

ERROR

Description

This message occurs when the replication engine encounters an inconsistent block in the cloud.

Corrective Action

Contact NetApp technical support.

Syslog Message

REPL cloud inconsistent: bad block in %s inode (fileid:%s rootcbn:%u) at fbn:%llu level:%u in volume %llu. Abort when corruption is encountered:%u.

Parameters

file_space (STRING): File space.
fileid (STRING): Identifying number for the suspect inode.
rootcbn (LONGINT): Snapshot inofile root.
fbn (LONGINT): File block number.
level (INT): Buffer level.
dsid (LONGINT): Dsid of the volume.
abort (INT): Abort when corrupt block is encountered.

repl.cloud.incons.gc

Severity

ERROR

Description

This message occurs when the replication engine encounters inconsistent map object in the cloud. This does not cause user data corruption but can result in few dangling objects.

Corrective Action

Contact NetApp technical support.

Syslog Message

REPL cloud inconsistent: Corrupted cloud data detected in cloud snapshot:%s, cloud snapshot UUID:%s, cloud object:%s.

Parameters

snapshot_name (STRING): Cloud snapshot name.
snapshot_uuid (STRING): Cloud snapshot Universally Unique ID (UUID).
object_name (STRING): Cloud object name.

repl.core events

repl.core.nanny.cleanup

Severity

INFORMATIONAL

Description

This message occurs when a replication transfer that completed ten or more minutes ago is found and subsequently cleaned up.

Corrective Action

(None).

Syslog Message

The replication transfer identified by transfer Id %s was cleaned up since the transfer finished ten or more minutes ago.

Parameters

> **transferid** (STRING): Identifier given for a particular transfer by the replication initiator.
> **status** (INT): Progress status of the replication transfer when it was cleaned up.
> **failureReason** (INT): Failure reason code if there was a failure. Zero is returned on success.
> **failureMsg** (INT): Failure message code if there was a failure. Zero is returned on success.
> **failureMsgDetail** (INT): Failure message detail code if there was a failure. Zero is returned on success.

repl.data events

repl.data.uncompacted

Severity

> NOTICE

Description

> This message occurs when compacted data is replicated to a volume that does not have data compaction enabled. The data is uncompacted on the destination volume and its original contents are written.

Corrective Action

> (None).

Syslog Message

> Data written to volume %s%s%s will be uncompacted.

Parameters

> **volname** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Unique identifier for the volume.

repl.dest events

repl.dest.css.upload.notsup

Severity

> ERROR

Description

> This message occurs when Replication Engine encounters CSS Upload Table in a snapshot.

Corrective Action

> (None).

Syslog Message

> SnapMirror transfer failed because the transfer snapshot contains CSS upload table.

Parameters

> (None).

repl.dest.ilabels.notsup

Severity

ERROR

Description

This message occurs when a snapshot that contains ilabels is transferred to a destination whose ONTAP version that does not support ilabels.

Corrective Action

Update the destination node version of ONTAP to 9.9.1 or above.

Syslog Message

SnapMirror transfer with transfer ID %s will not send existing ilabels because the destination node %s does not support them.

Parameters

transferUuid (STRING): UUID of the SnapMirror® transfer.
dstNode (STRING): UUID of the node where the SnapMirror® destination is present.

repl.dest.multipart.inodes.notsup

Severity

ERROR

Description

This message occurs when a snapshot that contains multipart inodes is transferred to a destination volume that does not support them. Multipart inodes are created on volumes with granular data enabled.

Corrective Action

Update the destination node to a version of ONTAP that supports granular data and enable granular data on the destination volume.

Syslog Message

SnapMirror transfer failed because the transfer snapshot contains multipart inodes and the destination volume does not support them.

Parameters

(None).

repl.dest.space.guarantee.no.space

Severity

ERROR

Description

This message occurs when replication fails to set the space guarantee on the destination volume because there is not enough space on the destination aggregate.

Corrective Action

Changing the space guarantee type failed because the destination aggregate does not have enough free space. Please increase the amount of free space on the destination aggregate or change the space

guarantee type of the source volume to NONE.

Syslog Message

The volume with DSID %llu, name %s%s, Vserver UUID %s cannot support changing the space guarantee to %s because the aggregate does not have enough free space. Please increase the amount of free space on the destination aggregate by at least %s.

Parameters

dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolName (STRING): Destination volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume
srcSpcGuarantee (STRING): Source volume space guarantee.
shortBy (STRING): Amount of extra free space required on the destination aggregate to support changing the guarantee type of the destination volume.

repl.dest.volume.too.small

Severity

ERROR

Description

This message occurs when the transfer snapshot from the source is unexpectedly larger than the size of the destination volume.

Corrective Action

Increase the destination volume size to be greater than or equal to the source volume size.

Syslog Message

The volume with vserver UUID %s, DSID, %llu, name %s, and size %lld bytes, is not large enough to allow replication of a transfer snapshot with size %lld from the source volume.

Parameters

dstVolOwnerUUID (STRING): UUID of the vserver that owns the destination volume.
dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolName (STRING): Destination volume name.
dstVolSize (LONGINT): Destination volume size in bytes.
srcVolSize (LONGINT): Source transfer snapshot size in bytes.

repl.dst events

repl.dst.snaps.check.failed

Severity

ERROR

Description

This message occurs when a SnapMirror® logical transfer is not possible due to an incompatible reference snapshot on the destination.

Corrective Action

Continue with physical transfers until a new snapshot is created on the source volume and the source volume is converted to dual inode space. Logical transfers can be started after this new snapshot is replicated to the destination volume.

Syslog Message

SnapMirror operation failed because the reference snapshot on the destination volume is either a) from a release prior to Data ONTAP 8.2 b) captured in a nonclustered format c) not upgraded to dual inode space.

Parameters

dstVolMsid (LONGINT): Destination volume Master Data Set ID (MSID).
dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolVserverId (INT): Destination volume Vserver ID.
dstInstanceRefImageUuid (STRING): Destination reference instance snapshot UUID.
dstVersionRefImageUuid (STRING): Destination reference version snapshot UUID.

repl.enable events

repl.enable.seq.split

Severity

NOTICE

Description

This message occurs when sequential splitting mode is enabled for a SnapMirror Synchronous relationship. This mode is unsuitable for large file workloads like LUNs, databases, virtualized workloads and video surveillance.

Corrective Action

(None).

Syslog Message

Enabling sequential splitting mode for relationship with UUID "%s".

Parameters

relationship_id (STRING): Relationship UUID.

repl.exovol events

repl.exovol.not.quiesced

Severity

INFORMATIONAL

Description

This message occurs when an exo-volume scanner detects a loss of volume quiescence during a volume move operation. This typically occurs when there is too much data to transfer within the allowed cutover window.

Corrective Action

Check the network connectivity between the nodes involved in the volume move. Decrease the amount of client traffic to the volume. If those steps do not reduce the amount of data to be transferred enough to allow the transfer, force a volume move cutover with the "-cutover-action force" flag to the "volume move start" command.

Syslog Message

(None).

Parameters

plugin (STRING): Exo-volume plug-in name.
srcVolMsid (LONGINT): Source volume Master Data Set ID (MSID).
srcVolDsid (LONGINT): Source volume Data Set ID (DSID).
srcVolClusterId (STRING): Source volume cluster Universally Unique ID (UUID).
srcVolVserverId (INT): Source volume Vserver ID.
bytes_transferred (LONGINT): Number of bytes already transferred.
elapsed_msecs (LONGINT): Elapsed time in milliseconds.

repl.extended events

repl.extended.time.format.unsupported

Severity

ERROR

Description

This message occurs when the replication engine encounters a destination that does not support extended time format.

Corrective Action

Select a destination that supports extended time format.

Syslog Message

Extended time format not supported on the destination of relationship %s.

Parameters

transferId (STRING): UUID of the SnapMirror® transfer that has the destination that cannot handle extended time.

repl.gsr events

repl.gsr.cache.modify.gs.enfrc.failed

Severity

ERROR

Description

This message occurs when SnapMirror faces internal error while going Out-Of-Sync or source volume comes online.

Corrective Action

Resynchronize SnapmMirror sync relation. Please contact NetApp technical support for more options.

Syslog Message

Unable to modify enforcement for the sync granset relation.

Parameters

transferId (STRING): UUID of the SnapMirror® transfer.
srcCgUUID (STRING): Source CG UUID.
Code (INT): Error code.

repl.gsr.clone.replication

Severity

NOTICE

Description

This message occurs when replication of a clone request fails or cannot be serviced. The clone request completed successfully on the sync mirror primary, but was not completed on the sync mirror secondary. The clone will not be available on the sync mirror secondary.

Corrective Action

Wait for the relationship to automatically resynchronize.

Syslog Message

Failed to replicate clone of /vol/%s/%s to sync mirror secondary.

Parameters

volname (STRING): Volume name.
filename (STRING): Source filename.
reason (STRING): Descriptive reason for the notice.

repl.gsr.snap.replication.failed

Severity

INFORMATIONAL

Description

This message occurs when a snapshot replication request fails or cannot be served.

Corrective Action

(None).

Syslog Message

Failed to replicate snapshot operation to the destination.

Parameters

transferId (STRING): UUID of the SnapMirror® transfer.
srcVolumeDsid (LONGINT): Source volume data set ID (DSID).
srcCgUUID (STRING): Source CG UUID.
snapshotName (STRING): Name of the snapshot to be replicated.

failureReason (STRING): Reason for the failure.
replStatus (INT): Replication Status.
replFailureMsg (INT): Replication failure message.
replFailureMsgDetail (INT): Replication failure message detail.

repl.holdblock events

repl.holdblock.arrived

Severity

INFORMATIONAL

Description

This message occurs during an incremental transfer when the replica volume did a snapshot restore before the transfer. It records the VVBN of the block which is supposed to be held in memory until the end of transfer as it arrives from the source.

Corrective Action

(None).

Syslog Message

Held block for volume '%s%s%s' (DSID %llu) with VVBN %llu has arrived.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
vvbn (LONGINT): VVBN of the held block.

repl.holdblock.begin

Severity

INFORMATIONAL

Description

This message occurs at the beginning of an incremental transfer if the replica volume did a snapshot restore. It records the VVBN of the block that needs to be held in memory until the end of transfer.

Corrective Action

(None).

Syslog Message

Holding block for volume '%s%s%s' (DSID %llu) with VVBN %llu because Revert-to snapshot is set to %d.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
vvbn (LONGINT): VVBN of the block to be held.

snapId (INT): Revert-to snapshot Id.

repl.holdblock.end

Severity

INFORMATIONAL

Description

This message occurs at the end of an incremental transfer when the replica volume did a snapshot restore. The required VVBN arrived from the source and has been applied to WAFL.

Corrective Action

(None).

Syslog Message

Applied held block for volume '%s%s%s' (DSID %llu) with VVBN %llu to WAFL.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
vvbn (LONGINT): VVBN of the held block applied to WAFL.

repl.hole events

repl.hole.raid.error

Severity

ALERT

Description

This message occurs when a SnapMirror® transfer encounters an unrecoverable RAID error.

Corrective Action

Contact NetApp technical support for further assistance.

Syslog Message

SnapMirror transfer with transfer ID %s encountered an unrecoverable RAID error for %s with ID %d in destination volume %d.

Parameters

transferId (STRING): UUID of the SnapMirror transfer that encountered a RAID error.
fileSpace (STRING): File space (metafile or user file).
fileId (INT): File ID of the inode involved if it is a user file space, and metafile name if it is a metafile space.
dstVolDsid (LONGINT): Data set identifier (DSID) of the destination volume.

repl.jumpahead events

repl.jumpahead.failed

Severity

ERROR

Description

This message occurs when the system cannot bring a replica volume online after applying the latest update to the replica because of possible inconsistencies detected in the update. The system rolls back the volume to the file system that existed prior to applying the update and brings the volume back online.

Corrective Action

Run wafliron as soon as possible on the aggregate where the replica volume resides as well as on the aggregate where the source volume of the replica resides. If the problem persists, contact NetApp technical support for further assistance.

Syslog Message

Rolling back after jump-ahead failure for volume '%s%s%s' (DSID %llu) with error %d.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume
volDsid (LONGINT): Data Set Identifier (DSID) of the volume
code (INT): Error code returned while bringing online the volume with the latest update

repl.large events

repl.large.vol.600tb.limits.unsup

Severity

ERROR

Description

This message occurs when the replication engine encounters a destination that cannot handle large 600TB volume limits.

Corrective Action

Take one of the following actions: - Select a destination with version ONTAP 9.14.0 or later. - On the source volume, reduce the volume size "volume modify -vserver vserver_name> -volume vol_name -max-size 300TB".

Syslog Message

Large volume limits not supported on the destination node %s for destination volume with MSID %llu of relationship %s.

Parameters

dstNode (STRING): UUID of the node where the SnapMirror® destination is present.
dstVolMsid (LONGINT): MSID of the SnapMirror® destination volume.
transferId (STRING): UUID of the failed SnapMirror® transfer.

repl.large.vol.limits.unsup

Severity

ERROR

Description

This message occurs when the replication engine encounters a destination that cannot handle large volume limits.

Corrective Action

Take one of the following actions: - Select a destination with version ONTAP 9.12.1 or later. - On the source volume, reduce the volume size "volume modify -vserver vserver_name> -volume vol_name -large-volume -file-limits disable". Now disable large volume limits by using the "volume modify -vserver vserver_name -volume vol_name -large-volume-file-limits disable" command.

Syslog Message

Large volume limits not supported on the destination node %s for destination volume with MSID %llu of relationship %s.

Parameters

dstNode (STRING): UUID of the node where the SnapMirror® destination is present.
dstVolMsid (LONGINT): MSID of the SnapMirror® destination volume.
transferId (STRING): UUID of the failed SnapMirror® transfer.

repl.large.vol.unsup.maxvvbn

Severity

ERROR

Description

This message occurs when the replication engine encounters a destination that cannot handle large volumes.

Corrective Action

Select a destination that supports a volume size greater than 100 TB.

Syslog Message

Large volumes not supported on the destination node %s for destination volume with MSID %llu of relationship %s.

Parameters

dstNode (STRING): UUID of the node where the SnapMirror® destination is present.
dstVolMsid (LONGINT): MSID of the SnapMirror® destination volume.
transferId (STRING): UUID of the SnapMirror® transfer that has the destination that cannot handle large volumes.

repl.large.vol.unsup.nomsize

Severity

ERROR

Description

This message occurs when the replication engine encounters a destination that cannot handle large volumes.

Corrective Action

Take one of the following actions: - On the source volume, disable autosize if it is enabled by using the "volume modify vol_name -autosize-mode" command. Then reduce the size of the volume by using the "volume modify vol_name -size" command. - On the source volume, set the "max autosize" parameter to below 100 TB by using the "volume modify vol_name -max-autosize" command. - On the source volume, reduce the size of the volume to below 100 TB by using the "volume modify vol_name -size" command. - Select a destination that supports a volume size greater than 100 TB.

Syslog Message

Large volume not supported on the destination node %s for destination volume with MSID %llu of relationship %s.

Parameters

dstNode (STRING): UUID of the node where the SnapMirror® destination is present.
dstVolMsid (LONGINT): MSID of the SnapMirror® destination volume.
transferId (STRING): UUID of the failed SnapMirror® transfer.

repl.logical events

repl.logical.dw.rebuild

Severity

INFORMATIONAL

Description

This message occurs when a data warehouse is rebuilt as part of a SnapMirror® restore or resync operation.

Corrective Action

(None).

Syslog Message

A data warehouse rebuild was performed on volume with name %s, MSID %llu, DSID %llu, and Vserver ID %u.

Parameters

volName (STRING): Volume name.
volMsid (LONGINT): Volume master data set ID (MSID).
volDsid (LONGINT): Volume data set ID (DSID).
volVserverId (INT): Volume Vserver ID.

repl.logical.lreToIrse

Severity

INFORMATIONAL

Description

This message occurs when previously enabled compression is disabled on the destination volume of a SnapMirror® relationship with the type XDP, and when it is followed by the "snapmirror update" command with the "enable-storage-efficiency" parameter set to "true". All future transfers to this destination volume from the current source will preserve storage efficiency as long as compression is disabled on it.

Corrective Action

(None).

Syslog Message

All future transfers from the current source to destination volume %s%s with MSID %llu, DSID %llu, from the current source will preserve storage efficiency as long as compression is disabled on the destination volume.

Parameters

dstVolName (STRING): Destination volume name.
dstVolVserverUuid (STRING): Destination volume Vserver ID.
dstVolMsid (LONGINT): Destination volume Master data set ID (MSID).
dstVolDsid (LONGINT): Destination volume data set ID (DSID).

repl.logical.lrseToIre

Severity

INFORMATIONAL

Description

This message occurs when compression is enabled on the destination volume of a SnapMirror® relationship that has type XDP. All future transfers to this destination volume from the current source will not preserve storage efficiency.

Corrective Action

(None).

Syslog Message

All future transfers to destination volume with MSID %llu, DSID %llu, and Vserver ID %u, from the current source will not preserve storage efficiency.

Parameters

dstVolMsid (LONGINT): Destination volume Master Data Set ID (MSID).
dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolVserverId (INT): Destination volume Vserver ID.

repl.logical.rawDirToLogicalDir

Severity

INFORMATIONAL

Description

This message occurs when a SnapMirror® transfer uses logical mode after a previous transfer to the same destination used raw directory mode. This most frequently occurs when the source node of the transfer was upgraded to a newer version of Data ONTAP® than the destination node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

dstVolMsid (LONGINT): Destination volume Master Data Set ID (MSID).
dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolClusterId (STRING): Destination volume cluster Universally Unique ID (UUID).
dstVolVserverId (INT): Destination volume Vserver ID.
srcInstanceImageUuid (STRING): Source transfer instance snapshot UUID.
srcVersionImageUuid (STRING): Source transfer version snapshot UUID.
rawDirsSupported (INT): Indicates whether the destination believes raw directory transfer is supported.
rawDirsRequired (INT): Indicates whether the destination believes raw directory transfer is required.

repl.out events

repl.out.of.band.vbn

Severity

INFORMATIONAL

Description

This message occurs when replication source is asked to send certain blocks out of band because the replica volume did a snapshot restore.

Corrective Action

(None).

Syslog Message

Asked volume '%s%s%s' (DSID %llu) to send out-of-band VVBN %llu; current cursor: %llu; need-many-VBN value: %d.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the volume.
oobVVBN (LONGINT): Out-of-band Virtual Volume Block Number (VVBN).
cursor (LONGINT): Current scan cursor.
many (INT): Whether multiple out-of-band VVBNs were asked for.

repl.out.of.memory

Severity

NOTICE

Description

This message occurs when an out-of-memory error is encountered during a SnapMirror® replication operation.

Corrective Action

(None).

Syslog Message

SnapMirror replication transfer encountered an out-of-memory error.

Parameters

memoryAllocation (STRING): Type of memory allocation.
retry_time_msecs (LONGINT): Retry time in milliseconds.
filename (STRING): Name of the file where the event occurred.
functionName (STRING): Name of the function for which the error occurred.
lineNumber (INT): Line number at which error the occurred.
size (LONGINT): Size of the memory allocation.

repl.physdiff events

repl.physdiff.invalid.hole

Severity

EMERGENCY

Description

This message occurs when a block to replicate was found to be inconsistent in the source volume. Replication has been aborted to avoid propagating the inconsistency to the destination node.

Corrective Action

Run wafliron on the aggregate containing the source volume of the replication.

Syslog Message

Replication of volume '%s%s%s' (DSID %llu) encountered an inconsistent block (VVBN %llu).

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume.
volDsid (LONGINT): Data set identifier (DSID) of the source volume.
vvbn (LONGINT): Virtual Volume Block Number of the affected block.

repl.s2c events

repl.s2c.checksum.mismatch

Severity

ERROR

Description

This message occurs when the checksum of an object's contents does not match with the expected checksum.

Corrective Action

Please contact NetApp technical support for more options.

Syslog Message

Checksum mismatch in cloud object contents. Endpoint UUID = %s. Relationship UUID = %s. Object Name = %s. Slot ID = %d.

Parameters

epUuid (STRING): Endpoint UUID.
relnUuid (STRING): Relationship UUID.
objName (STRING): Cloud object name.
slotId (INT): Slot ID.

repl.s2c.rel.state.inconsistent

Severity

EMERGENCY

Description

This message occurs when the replication source engine encounters a disk error in the relationship state metafile. Replication transfer will abort. Current relationship cannot be resumed.

Corrective Action

Current relationship cannot be resumed. Please create a new relationship.

Syslog Message

relationship state metafile inconsistent in volume '%s%s%s' due to disk errors. Aborting transfer.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

repl.s2c.restore.unsupported.config

Severity

ERROR

Description

This message occurs when we encounter unsupported configuration during SnapMirror® restore.

Corrective Action

Cannot continue with restore.

Syslog Message

Cannot restore to volume '%s%s%s' because %s.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

reason (STRING): Specific reason for failure.

repl.s2c.restore.unsupported.snapshot

Severity

ERROR

Description

This message occurs when we encounter unsupported source snapshot copy during SnapMirror® restore.

Corrective Action

Cannot use the source snapshot copy for SnapMirror® restore.

Syslog Message

Cannot restore from source snapshot copy to volume '%s%s%s' because %s.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
reason (STRING): Specific reason for failure.

repl.s2c.rst.archv.data.fnd

Severity

NOTICE

Description

This message occurs when SnapMirror® restore encounters data present in the cloud archive tier. SnapMirror restore cannot proceed until archival tier data processing has completed.

Corrective Action

Use the "snapmirror show" command to view the status of the processing of the archival tier of the cloud. When the relationship status becomes "Idle", then reissue the SnapMirror restore request.

Syslog Message

SnapMirror restore with transfer UUID "%s", cloud source endpoint UUID "%s", destination volume DSID "%llu", encountered data in the archival tier.

Parameters

transferId (STRING): SnapMirror transfer universal unique identifier (UUID).
srcEpUuid (STRING): Cloud source endpoint UUID.
dstVolDsid (LONGINT): Restore destination volume data set ID (DSID).

repl.s2c.src.inconsistent

Severity

EMERGENCY

Description

This message occurs when the replication source engine encounters a disk error in the file system

metadata. Replication transfer will abort.

Corrective Action

Run wafliron to fix the active file system. To continue replication transfer, run snapmirror abort -h command on the relationship, delete the current transfer snapshot copy and resume replication transfer from a new clean snapshot copy.

Syslog Message

WAFL metadata inconsistent in volume '%s%s%s' due to disk errors. Aborting transfer.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

repl.s2c.unsupported.config

Severity

ERROR

Description

This message occurs when we encounter unsupported configuration during SnapMirror® backup.

Corrective Action

Cannot continue with backup.

Syslog Message

Cannot backup from volume '%s%s%s' because %s.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
reason (STRING): Specific reason for failure.

repl.s2c.vmap.inconsistent

Severity

INFORMATIONAL

Description

This message occurs when the replication source engine encounters a disk error in the replication specifc metadata. Replication transfer will abort.

Corrective Action

(None).

Syslog Message

Replication specific metadata inconsistency in volume '%s%s%s'. Aborting transfer. Transfer will attempt baseline to recover from this condition.

Parameters

    vol (STRING): Name of the volume.
    app (STRING): Application UUID.
    volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

repl.send events

repl.send.mgr.forcedLogical

Severity

    INFORMATIONAL

Description

    This message occurs when a SnapMirror® transfer uses logical mode without even attempting raw directory negotiation.

Corrective Action

    (None).

Syslog Message

    (None).

Parameters

    srcVolMsid (LONGINT): Source volume Master Data Set ID (MSID).
    srcVolDsid (LONGINT): Source volume Data Set ID (DSID).
    srcVolClusterId (STRING): Source volume cluster Universally Unique ID (UUID).
    srcVolVserverId (INT): Source volume Vserver ID.
    srcInstanceImageUuid (STRING): Source transfer instance snapshot UUID.
    srcVersionImageUuid (STRING): Source transfer version snapshot UUID.
    srcInstanceRefImageUuid (STRING): Source reference instance snapshot UUID.
    srcVersionRefImageUuid (STRING): Source reference version snapshot UUID.

repl.seq events

repl.seq.split.enabled.SAN

Severity

    ALERT

Description

    This message occurs when the SnapMirror sequential split is enabled on a SAN operating workload. This is meant to be enabled for NAS workloads only. SAN operating workload would experience a higher latency and is not recommended to be used with sequential splitting mode.

Corrective Action

    Switch back to parallel split mode by running the command "snapmirror policy modify -policy (policy name) -are-data-ops-sequentially-split false".

Syslog Message

    Sequential splitting mode is enabled in SAN operating workload for relationship with UUID "%s".

Parameters

relationship_id (STRING): SnapMirror relationship universal unique identifier (UUID).

repl.ser events

repl.ser.ops.pardir.breach

Severity

NOTICE

Description

This message occurs when number of operations serialized on parent directory exceed an internal limit. This does not harm the system/cluster in any way.

Corrective Action

(None).

Syslog Message

Number of operations serialized on parent directory exceed the internal limit for relationship with UUID %s.

Parameters

relationship_id (STRING): SnapMirror relationship universal unique identifier (UUID).

repl.space events

repl.space.guarantee.transfer.failed

Severity

ERROR

Description

This message occurs when the attempt to change space guarantee type fails on the destination volume.

Corrective Action

Change the space guarantee type of the source volume to be the same as the space guarantee type of the destination volume.

Syslog Message

The volume with DSID %llu, name %s%s, Vserver UUID %s cannot support changing the space guarantee to %s on the destination aggregate, error %d.

Parameters

dstVolDsid (LONGINT): Destination volume Data Set ID (DSID).
dstVolName (STRING): Destination volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume
srcSpcGuarantee (STRING): Source volume space guarantee.
code (INT): Error code returned when setting the space guarantee of the destination volume.

repl.src events

repl.src.snaps.check.failed

Severity

ERROR

Description

This message occurs when SnapMirror® logical transfer is not possible due to incompatible snapshots.

Corrective Action

Create new snapshot on the source volume and use that for Logical transfer.

Syslog Message

SnapMirror operation failed because the reference and/or the transfer snapshots on the source volume are either a) from a release prior to Data ONTAP 8.2 b) captured in a nonclustered format c) not upgraded to dual inode space. These snapshots cannot be used for logical transfer.

Parameters

srcVolMsid (LONGINT): Source volume Master Data Set ID (MSID).
srcVolDsid (LONGINT): Source volume Data Set ID (DSID).
srcVolVserverId (INT): Source volume Vserver ID.
srcInstanceImageUuid (STRING): Source transfer instance snapshot UUID.
srcVersionImageUuid (STRING): Source transfer version snapshot UUID.
srcInstanceRefImageUuid (STRING): Source reference instance snapshot UUID.
srcVersionRefImageUuid (STRING): Source reference version snapshot UUID.

repl.switch events

repl.switch.to.seq.split

Severity

NOTICE

Description

This message occurs when the average Op Latency increases beyond the threshold value in parallel splitting mode.

Corrective Action

Switch to sequential splitting mode by setting the SnapMirror policy option "-are-data-ops-sequentially-split".

Syslog Message

Operation Latency has exceeded the threshold value "%llu" in the parallel split mode for sync relationship with UUID "%s".

Parameters

average_overall_latency (LONGINT): Average overall latency.
relationship_id (STRING): Relationship UUID.

repl.unable events

repl.unable.to.create.css

Severity

NOTICE

Description

This message occurs when the workflow is unable to create a common snapshot due to timeout. This operation is retried automatically.

Corrective Action

(None).

Syslog Message

Unable to create CSS "%s" for relationship with UUID %s.

Parameters

snapshot_name (STRING): Common snapshot name
relationship_id (STRING): SnapMirror relationship universal unique identifier (UUID).

repl.xfer events

repl.xfer.term.timed.out

Severity

ERROR

Description

This message occurs when a replication transfer component (sender or receiver) has taken more than an hour to terminate. Any future manual or scheduled replication transfer for this relationship cannot begin until this condition is corrected.

Corrective Action

Please generate a core file on the node, submit it to NetApp technical support and reboot the node.

Syslog Message

A component of a replication transfer with destination volume DSID '%llu' or SnapMirror® tape ndmp session '%s' is taking a long time to terminate since it is busy performing some operation.

Parameters

dstVolDsid (LONGINT): Data set identifier (DSID) of the destination volume.
smTapeNDMPSession (STRING): NDMP session identifier for SnapMirror® tape transfers.

replaycache events

replaycache.arcbktallocerr events

ReplayCache.ArcBktAllocErr

Severity

ERROR

Description

This message occurs when the replay-cache bucket (which is used to hold the responses of non-idempotent operations, to prevent the execution of duplicate I/O requests) that is associated with a bin (through a client connection) has fully utilized the maximum allowed memory and old bins holding the bucket is not able to release requests due to the configured expiration time. I/O operations are suspended until the bucket has available memory.

Corrective Action

Modify the replay cache bin expiration time using the "spinnp-replay-cache attributes modify -arc-initial -bucket-count 16 -arc-bin-expiration 30" command (privilege: diag). Specify a smaller value for the bin expiration time and initial bucket count, so that the bin eviction will happen sooner and new bin creation will require less memory in the bucket, which might help avoid the issue.

Syslog Message

A replay-cache bucket memory exhaust occurred due to the slow eviction of old bins and the high number of I/O operations being received by the server.

Parameters

(None).

replaycache.nfsv41bindelete events

ReplayCache.Nfsv41BinDelete

Severity

NOTICE

Description

This message occurs when the replay-cache bin associated with an NFSv4.1 session is destroyed due to a policy mismatch. In Data ONTAP® releases prior to 9.0, replay-cache bins for NFSv4.1 session were created with a certain policy. The policy associated with these bins has changed and the data in older bins cannot be migrated. Older bins are destroyed and new bins are created. The process of bin policy conversions for NFSv4.1, occurs when the effective cluster version (ECV) changes due to an upgrade or revert operation. Connection Session Manager (CSM) sessions are used to communicate file operations between nodes in the cluster. During this period, if CSM sessions experience timeouts or other errors, NFSv4.1 clients might receive unexpected results for a few of their outstanding requests. All new NFSv4.1 client requests are unaffected.

Corrective Action

(None).

Syslog Message

The replay-cache bin associated with a NFSv4.1 session was deleted and recreated due to a policy mismatch. Current NFSv4.1 session might temporarily receive unexpected results.

Parameters

(None).

replication events

replication.cluster events

replication.cluster.vol

Severity

ERROR

Description

This message occurs because the transfer of clustered volumes is not supported in nonclustered environments.

Corrective Action

Use clustered ONTAP to transfer cluster volumes.

Syslog Message

Canceled transfer of %s volume '%s', %s transfer of cluster volume is not supported in nonclustered environments.

Parameters

type (STRING): Destination or source.
volume (STRING): Replica volume.
transfertype (STRING): Type of transfer.

replication.dst events

replication.dst.attrsNotSaved

Severity

ERROR

Description

This message is issued at the end of a Qtree SnapMirror® or SnapVault® transfer or checker/fixer operation when the replication destination detects that the replication source has sent file attributes that the replication destination does not support, and the replication destination has not saved those attributes. This may happen when the replication source is running a newer version of ONTAP which supports file attributes that the replication destination does not support.

Corrective Action

To store all of the attributes, upgrade your replication destination filer to a version of ONTAP which is at least as recent as the source. Alternatively, this message can be suppressed for all future transfers or checker/fixer operations for all Qtree SnapMirror and SnapVault relationships by setting the hidden replication option, suppress_attrs_not_saved_warnings.

Syslog Message

The replication destination was unable to replicate all file attributes on %d file(s) or director(y/ies) in %s because it does not support one or more of the attributes sent by the source.

Parameters

    attrs_not_saved (INT): The number of files for which the replication destination could not replicate all file attributes.
    dst_path (STRING): Destination qtree path.

replication.dst.debugLog

Severity

    ERROR

Description

    This message occurs when a SnapMirror® or SnapVault® destination cannot log the replication protocol header for the data received.

Corrective Action

    The reasons for the error cited in the error message might indicate ways to address the problem.

Syslog Message

    Logical Replication header log: %s %s:%s.

Parameters

    reason (STRING): Reason for the failure.
    file_name (STRING): Logging file for which the error was encountered.
    errstr (STRING): Error encountered during logging operation.

replication.dst.err

Severity

    ERROR

Description

    This message occurs when the system detects an error on a SnapMirror® or SnapVault® destination volume or qtree.

Corrective Action

    (None).

Syslog Message

    %s: destination transfer from %s:%s to %s : %s.

Parameters

    rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
    srcfiler (STRING): Replication source system.
    srcpath (STRING): Replication source volume or qtree.
    dstpath (STRING): Replication destination volume or qtree.
    error (STRING): Specific error message.

replication.dst.inodeMissing

Severity

ERROR

Description

This message occurs when a file for which the replication source sent data is not present on the replication destination.

Corrective Action

Check for WAFL® inconsistencies on the replication source.

Syslog Message

The replication destination could not find the file corresponding to %d sent from the replication source. Check for WAFL inconsistencies on the replication source %s:%s.

Parameters

inode (INT): Inode number of the source file for which the corresponding file is not present.
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.

replication.dst.langMismatch

Severity

ERROR

Description

This message occurs when the user continues with the updates of the replication relationship after changing the language setting of the volume in which qtree replicas are configured or that contain replica primary.

Corrective Action

Create a new baseline for the relationship.

Syslog Message

Volume language was changed before this transfer or it was changed before some previous update transfer for the relationship of qtree %s. This might create some problems with further replication transfers of the relationship.

Parameters

qtpath (STRING): Destination qtree path.

replication.dst.lostACL

Severity

ERROR

Description

This message occurs when a replication update discovers that an inode that is supposed to have an ACL does not have one, causing the replication to fail.

Corrective Action

If the replication destination is a SnapMirror® destination, run the 'snapmirror quiesce' command to quiesce

the replication relation, then run the 'snapmirror check -F' command under the guidance of NetApp technical support. If the destination is a SnapVault® destination, run the 'snapvault check -F' command under the guidance of NetApp technical support.

Syslog Message

Replication transfer from %s:%s to %s:%s: the destination could not find ACL %d for source inode %d.

Parameters

srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
acl_inode (INT): Inode number of source ACL.
file_inode (INT): Inode number of the replication source file.

replication.dst.noCommonSnap

Severity

ERROR

Description

This message occurs when a SnapVault® or SnapMirror® relationship cannot be resynchronized because there is no usable snapshot that the source and destination have in common. In such situations, the 'snapvault start -r' and 'snapmirror resync' commands cannot be successfully completed.

Corrective Action

The relationship cannot be resynchronized so it must be reinitialized. For SnapMirror, use the 'snapmirror initialize' command. For SnapVault, use the 'snapvault start' command. Either run the baseline transfer to a new qtree, or remove the existing qtree before starting the transfer. Refer to the Data Protection Guide for details.

Syslog Message

%s: destination transfer from %s:%s to %s:%s : no common snapshot to use as the base for resynchronization.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error

replication.dst.noMemory

Severity

ALERT

Description

This message occurs when there is insufficient memory on the SnapMirror® or SnapVault® destination for the transfer to continue.

Corrective Action

(None).

Syslog Message

System is low on memory; aborting %s destination transfer.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).

replication.dst.noSrcSnap

Severity

ERROR

Description

This message occurs when a SnapVault® or SnapMirror® destination discovers that the relationship's base snapshot no longer exists on the source. In such situations, 'snapvault update' and 'snapmirror update' commands cannot execute successfully.

Corrective Action

For SnapMirror, issue the command 'snapmirror resync' to make SnapMirror attempt to resynchronize the relationship. If the resync operation cannot find a common snapshot, you must reestablish the relationship with the 'snapmirror initialize' command. For SnapVault, issue the command 'snapvault start -r' to make SnapVault attempt to resynchronize the relationship. If the 'snapvault start -r' command cannot find a common snapshot, you must reestablish the relationship with the 'snapvault start' command. If you must reestablish a relationship, either run the baseline transfer to a new qtree, or remove the existing qtree before starting the transfer. Refer to the Data Protection Guide for details.

Syslog Message

%s: destination transfer from %s:%s to %s:%s : base snapshot for transfer no longer exists on the source.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error.

replication.dst.resync.failed

Severity

ERROR

Description

This message occurs when a SnapMirror® or SnapVault® resync operation is not successful.

Corrective Action

See error message.

Syslog Message

%s resync of %s to %s:%s : %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
dstpath (STRING): Replication destination volume or qtree.
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source volume or qtree.
error (STRING): Error message.

replication.dst.resync.success

Severity

NOTICE

Description

This message occurs when a SnapMirror® or SnapVault® resync operation is successful.

Corrective Action

Operation successful; no corrective action required.

Syslog Message

%s resync of %s to %s:%s was successful.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
dstpath (STRING): Replication destination volume or qtree.
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source volume or qtree.

replication.dst.setACLError

Severity

ERROR

Description

This event occurs when ONTAP encounters an illegal data stream during a logical backup operation. This is usually due to an OSSV primary software bug. Normally OSSV sets an ACL (Access Control List) on a regular file or directory. However, as a result of this bug, OSSV attempts to set an ACL on an Alternate Data Stream (ADS) of a file or directory. See bug 148879 for details.

Corrective Action

(None).

Syslog Message

(None).

Parameters

src_base_inum (INT): The base inode number generated by the source. The source is trying to set an ACL on this inode, which happens to be a stream.
dst_base_inum (INT): The corresponding base inode number on the destination.

replication.dst.setACLFailed

Severity

ERROR

Description

This message occurs when ONTAP encounters an error while setting an ACL (Access Control List) for an inode on a SnapVault® or SnapMirror® destination. The replication transfer is aborted upon encountering this error.

Corrective Action

(None).

Syslog Message

Replication transfer from %s:%s to %s:%s: The destination failed to set ACL %d for source inode %d on destination inode %d. The replication transfer is aborted.

Parameters

srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
acl_inode (INT): Inode number of the source ACL.
src_base_inum (INT): Base inode number generated by the source. The destination is trying to set an ACL on this inode.
dst_base_inum (INT): Corresponding base inode number on the destination.

replication.dst.throttleChange

Severity

NOTICE

Description

This event is issued when the replication source, receives a request from the destination to change the current throttle value.

Corrective Action

(None).

Syslog Message

Throttle value changed to %d Kbytes/s for destination %s:%s

Parameters

throttle (INT): The new throttle value.
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination volume or qtree

replication.dst.throttleChange.err

Severity

NOTICE

Description

This event is issued when the replication source, receives a request from the destination to change the current throttle value, but failed to complete the operation.

Corrective Action

(None).

Syslog Message

Failed to change throttle value to %d Kbytes/s for destination %s:%s : %s

Parameters

throttle (INT): The new throttle value.
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination volume or qtree
error (STRING): The error message

replication.dst.waflErr

Severity

ERROR

Description

This message occurs when the system detects an error on a SnapMirror® or SnapVault® destination volume or qtree due to WAFL®.

Corrective Action

(None).

Syslog Message

%s: destination transfer from %s:%s to %s : %s:%s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source volume or qtree.
dstpath (STRING): Replication destination volume or qtree.
rplerror (STRING): Specific replication error message.
waflerror (STRING): Specific WAFL error message.

replication.err events

replication.err.snapCreateFailed

Severity

ERROR

Description

This message occurs when the replication engine fails to create an automatic snapshot.

Corrective Action

Make sure that the snapshot limit is not reached for the volume. The current ONTAP version allows a maximum of 255 snapshots per volume.

Syslog Message

%s transfer from %s:%s to %s:%s : %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error message.

replication.givebackcancel events

replication.givebackCancel

Severity

ERROR

Description

This message occurs when a 'giveback' command is issued while a SnapMirror® or SnapVault® transfer is in progress.

Corrective Action

(None).

Syslog Message

%s transfer in progress or in-sync; canceling giveback.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).

replication.global events

replication.global.throttle

Severity

NOTICE

Description

This event is issued when the request to change/set the throttling value for a replication association is failed. This is because the network layer does not support throttling traffic. This usually happens when the connection is going through a tcp offload device.

Corrective Action

(None).

Failed to set global throttle value for transfer from %s:%s to %s:%s

Parameters

srcfiler (STRING): The replication source filer
srcpath (STRING): The replication src volume or qtree
dstfiler (STRING): The replication destination filer
dstpath (STRING): The replication destination volume or qtree

replication.lcl events

replication.lcl.noHostname

Severity

ERROR

Description

This message occurs when a SnapMirror® or SnapVault® transfer is started on a system without a host name.

Corrective Action

Configure the hostname on the indicated system before attempting a SnapMirror or SnapVault transfer operation.

Syslog Message

%s transfer could not be started because no host name is configured on this system.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error.

replication.nomemory events

replication.noMemory

Severity

ALERT

Description

This message occurs when there is insufficient memory for the replication transfer to continue.

Corrective Action

The system is out of memory. This could be a transient situation. Reduce the load on the system or defer the transfer.

Syslog Message

Replication transfer failed to allocate memory.

Parameters

file (STRING): File in which the software error occurred.
line (INT): Line number in the file for the software error.

replication.qtree events

replication.qtree.dst.disk.error

Severity

ALERT

Description

This message occurs when the replication destination engine receives blocks with disk errors from the source for the first time in a transfer and continues with replication.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror: transfer from %s:%s to %s:%s: Source volume has disk errors. Continuing with replication. See /etc/log/snapmirror for inconsistency details.

Parameters

src_filer (STRING): Source filer of this replication transfer.
src_path (STRING): Source path of this replication transfer.
dst_filer (STRING): Destination filer of this replication transfer.
dst_path (STRING): Destination path of this replication transfer.

replication.qtree.dst.disk.error.abort

Severity

ERROR

Description

This message occurs when the replication destination engine receives blocks with disk errors from the source and aborts because of user-set options.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror: transfer from %s:%s to %s:%s: Source volume has disk errors. (source fid:%u,source fbn:%u,source snapid:%u). Aborting transfer.

Parameters

src_filer (STRING): Source filer of this replication transfer.
src_path (STRING): Source path of this replication transfer.
dst_filer (STRING): Destination filer of this replication transfer.

dst_path (STRING): Destination path of this replication transfer.
sfileid (INT): Identifying number for the suspect file
sfbn (INT): File block number in which the disk error was found.
ssnapid (INT): Incremental snapshot of the source from which this file came.

replication.qtree.dst.disk.error.summary

Severity

ERROR

Description

This message occurs when the replication involving blocks with disk errors happens on the replication destination.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror: transfer from %s:%s to %s:%s: Source volume has disk errors. %u blocks out of %u blocks replicated are inconsistent. See /etc/log/snapmirror for inconsistency details.

Parameters

src_filer (STRING): Source filer of this replication transfer.
src_path (STRING): Source path of this replication transfer.
dst_filer (STRING): Destination filer of this replication transfer.
dst_path (STRING): Destination path of this replication transfer.
total_bad_blks (INT): Total number of blocks with disk errors received.
total_blks (INT): Total number of blocks received.

replication.qtree.dst.inconsistent.acl

Severity

ERROR

Description

This message occurs when the replication destination engine receives an Access Control List (ACL) with disk errors from the source.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror: transfer from %s:%s to %s:%s: Source volume has disk errors. (source acl fid:%u,source snapid:%u). Aborting transfer.

Parameters

src_filer (STRING): Source filer of this replication transfer.
src_path (STRING): Source path of this replication transfer.
dst_filer (STRING): Destination filer of this replication transfer.
dst_path (STRING): Destination path of this replication transfer.
sfileid (INT): Identifying number for the suspect ACL.
snapid (INT): Incremental snapshot of the source from which this ACL came.

replication.qtree.dst.inconsistent.symlink

Severity

ERROR

Description

This message occurs when the replication destination engine receives a symbolic link with disk errors from the source.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror: transfer from %s:%s to %s:%s: Source volume has disk errors. (source symlink fid:%u,source snapid:%u). Aborting transfer.

Parameters

src_filer (STRING): Source filer of this replication transfer.
src_path (STRING): Source path of this replication transfer.
dst_filer (STRING): Destination filer of this replication transfer.
dst_path (STRING): Destination path of this replication transfer.
sfileid (INT): Identifying number for the suspect symbolic link.
snapid (INT): Incremental snapshot of the source from which this symbolic link came.

replication.regoperr events

replication.regOpErr

Severity

ERROR

Description

This message occurs when the system encounters an error during a registry operation related to SnapMirror® or SnapVault®.

Corrective Action

The reasons for the error cited in the error message might indicate ways to address the problem.

Syslog Message

Replication registry operation error: %s.

Parameters

reason (STRING): Reason for registry operation failure.

replication.resync events

replication.resync.cmnSnpCnt

Severity

NOTICE

Description

This message occurs during a SnapMirror® or SnapVault® resync operation to inform the user of the number of common snapshots detected between the source and destination.

Corrective Action

(None).

Syslog Message

Resynchronization of %s:%s to %s:%s found %d matching snapshots; using the most recent one.

Parameters

dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination volume or qtree.
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source volume or qtree.
cmnsnapcnt (INT): Number of common snapshots detected between the source and destination.

replication.rmt events

replication.rmt.noHostname

Severity

ERROR

Description

This message occurs when the remote system of a SnapMirror® or SnapVault® transfer does not have a host name.

Corrective Action

Configure the host name on the remote system before attempting a SnapMirror or SnapVault transfer from that system.

Syslog Message

%s transfer from %s:%s to %s:%s cannot be started because the remote system does not have a host name.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error.

replication.src events

replication.src.err

Severity

ERROR

Description

This message occurs when the system detects an error on a SnapMirror® or SnapVault® source volume or qtree.

Corrective Action

(None).

Syslog Message

%s: source transfer from %s to %s:%s : %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcpath (STRING): Replication source volume or qtree.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination volume or qtree.
error (STRING): Specific error message.

replication.src.inconsistent.snapmap

Severity

ERROR

Description

This message occurs when a replication source engine encounters a disk error in a snapmap block. Replication transfer will abort.

Corrective Action

Run wafliron as soon as possible, and then Contact NetApp technical support.

Syslog Message

WAFL metadata inconsistent due to disk errors in volume %s. The affected snapshot ID is %d (level: %d). Aborting transfer.

Parameters

volname (STRING): Aggregate, traditional volume, or flexible volume name.
snapid (INT): Snapshot ID.
level (INT): Buffer level.

replication.src.throttleChange

Severity

NOTICE

Description

This event is issued when the replication source, receives a request from the destination to change the current throttle value.

Corrective Action

(None).

Syslog Message

Throttle value changed to %d Kbytes/s for destination %s:%s

Parameters

throttle (INT): The new throttle value.
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination volume or qtree

replication.src.throttleChange.err

Severity

ERROR

Description

This event is issued when the replication source, receives a request from the destination to change the current throttle value, but failed to complete the operation.

Corrective Action

(None).

Syslog Message

Failed to change throttle value to %d Kbytes/s for destination %s:%s : %s

Parameters

throttle (INT): The new throttle value.
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination volume or qtree
error (STRING): The error message

replication.src.unknownCommand

Severity

NOTICE

Description

This event is issued when the replication source, SnapMirror or SnapVault, receives a request from the destination which it does not understand. This can be seen when changes are made to the negotiation phase internally during development. This error message should NEVER show up on customer builds.

Corrective Action

This message is normally seen after upgrading the source or the destination. ONTAP version mismatch between the source and destination can cause this. One should not see this problem if the source and destination filers are running the same version of ONTAP.

Syslog Message

Replication source received an unknown command from the destination. This might be due to ONTAP version mismatch between the source and destination.

Parameters

(None).

replication.stats events

replication.stats.notLoaded

Severity

INFORMATIONAL

Description

This message occurs during system boot when SnapMirror® or SnapVault® cannot load the statistics (for example. the number of transfers completed) from the registry. The statistics from the previous run of the system are lost and SnapMirror or SnapVault will start collecting the statistics from scratch.

Corrective Action

(None).

Syslog Message

%s could not load statistics from the registry.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).

replication.stats.notSaved

Severity

INFORMATIONAL

Description

This message occurs when SnapMirror® or SnapVault® cannot save some statistics (for example. the number of transfers completed) in the registry at the end of a transfer. The operation is retried at the end of the next SnapMirror or SnapVault transfer.

Corrective Action

(None).

Syslog Message

%s could not save statistics to the registry.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).

replication.status events

replication.status.timeSkewed

Severity

NOTICE

Description

This message occurs when the time skew between the source and destination system is greater than 1 minute.

Corrective Action

Use either the 'date' or 'rdate' command to synchronize the time between the systems.

Syslog Message

%s: Clock on source %s is ahead of destination system %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on.).
srcfiler (STRING): The host name of the source system.
dstfiler (STRING): The host name of the destination system.

replication.upgrade events

replication.upgrade.complete

Severity

INFORMATIONAL

Description

This message occurs when post-upgrade operations for SnapMirror® and SnapVault®, as a part of ONTAP upgrade, are complete.

Corrective Action

(None).

Syslog Message

Post-upgrade operations for SnapMirror and SnapVault are complete.

Parameters

(None).

replication.vol events

replication.vol.activemapdelta.err

Severity

ERROR

Description

This message occurs when SnapMirror® or VolCopy replication encounters a disk error in the active map delta blocks on the destination and cannot continue replication.

Corrective Action

For a SnapMirror update operation, break the SnapMirror relation and then resynchronize the relation. For a VolCopy or SnapMirror Initialize operation, destroy the destination volume and retry the operation. If the problem persists, contact NetApp technical support.

Syslog Message

WAFL active map delta file is inconsistent due to disk errors '%s%s%s'. Aborting transfer.

Parameters

volname (STRING): Flexible volume name.
app (STRING): Application UUID.
volident (STRING): Volume unique identifier.

replication.vol.dst.disk.error

Severity

ERROR

Description

This message occurs when the replication destination engine receives the first disk error from the replication source in a transfer. Replication will continue. Subsequent disk errors encountered during this transfer will not trigger this event, but will be logged to /etc/log/snapmirror. A replication.vol.dst.disk.error.summary event is logged at the end of the transfer to report on the total number of errors encountered.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s: %s: Source volume has disk errors. Continuing replication. See /etc/log/snapmirror for inconsistency details.

Parameters

rpltype (STRING): Replication type - SnapMirror, Aggr copy, Vol copy.
transfer_paths (STRING): Replication source path and destination path.

replication.vol.dst.disk.error.abort

Severity

ERROR

Description

This message occurs when the replication destination engine receives blocks with disk errors from the source Replication will abort because the user selected the option to abort on disk error.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s: %s: Source volume has disk errors (vbn:%llu). Aborting transfer.

Parameters

rpltype (STRING): Replication type - SnapMirror, Aggr copy, Vol copy
transfer_paths (STRING): Replication source path and destination path
vbn (LONGINT): Volume Block Number

replication.vol.dst.disk.error.summary

Severity

ERROR

Description

This message occurs on the replication destination in a transfer that encounters disk errors. Details about the errors are in /etc/log/snapmirror.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s: %s: Source volume has disk errors. %u blocks out of %llu blocks replicated are inconsistent. See /etc/log/snapmirror for inconsistency details.

Parameters

rpl_type (STRING): Replication type - SnapMirror, Aggr copy, Vol copy.
transfer_path (STRING): Replication source path and destination path.
total_bad_blocks (INT): Total number of blocks with disk errors replicated.
total_blocks (LONGINT): Total number of blocks replicated.

replication.vol.src.inconsistent.metadata

Severity

ALERT

Description

This message occurs when a replication source engine encounters a disk error in the file system metadata. Replication transfer will abort.

Corrective Action

If the specified snapshot IDs contain 0 (active file system), run wafliron to fix the active file system. To continue replication transfer, delete the specified snapshots during the next reboot, either by using the boot menu command 'boot_snap_delete' or by using the CLI command 'vol online -r'. Then contact NetApp technical support.

Syslog Message

%s: %s: WAFL metadata inconsistent due to disk errors. (vbn:%llu level:%u file_type:%d) The affected snapshot IDs are %s. Aborting transfer.

Parameters

rpltype (STRING): Replication type - SnapMirror, Aggr copy, Vol copy
transfer_paths (STRING): Replication source path and destination path.
vbn (LONGINT): Virtual Volume Block Number
level (INT): Buffer level.
file_type (INT): Inode type.
snapstring (STRING): String containing the list of snapshot IDs of the snapshots that have the inconsistent blocks.

replication.wormlog events

replication.wormlog.appendFail

Severity

ERROR

Description

This event is issued when failed to append to the replication worm log file. This can be seen when the worm log volume is full, or other hardware failure in the log volume.

Corrective Action

Check the free space and the sanity of the worm log volume. Add or replace hard disk for the worm log volume.

Syslog Message

Failed to append to the replication worm log: %s.

Parameters

error_msg (STRING): Error message for the failure.

replication.xfr events

replication.xfr.checksum.fail

Severity

ERROR

Description

This message occurs when a SnapMirror®/SnapVault(tm) operation is not completed because a block received from the source system failed checksum verification. This might be caused by corruption in the network stream that went undetected by the TCP checksum.

Corrective Action

Scheduled SnapMirror/SnapVault update operations are automatically retried and should succeed. However, if the problem persists, use the 'netstat -s' command to review the network statistics for TCP packets "discarded for bad checksums". If you find large numbers of such discards, diagnose the network between the source and destination systems for any problems. If TCP does not report any checksum errors and this problem still persists, contact NetApp technical support technical support.

Syslog Message

%s transfer from %s:%s to %s:%s : %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error.

replication.xfr.nonExistSnap

Severity

NOTICE

Description

A SnapMirror® or SnapVault(tm) operation was not completed because the specified snapshot could not be found. Any of the following scenarios can cause this event to occur: (1) The SnapVault schedules are configured incorrectly at the destination. (2) The 'snapmirror initialize' or 'snapmirror update' command was issued with the '-s' option, and the transfer cannot start. (3) The SnapVault or SnapMirror transfer cannot restart from a checkpoint.

Corrective Action

For scheduled SnapVault updates, ensure that the snapshot name on the destination volume and source volume is the same. For 'snapmirror initialize' or 'update' commands from a named snapshot, ensure that the requested snapshot exists on the source volume. For restarted SnapVault or SnapMirror transfers, run the 'snapmirror abort' or 'snapvault abort' command with the '-h' option before retrying the transfer.

Syslog Message

%s transfer from %s:%s to %s:%s : %s.

Parameters

rtype (STRING): Replication type (SnapMirror, SnapVault, and so on).
srcfiler (STRING): Replication source appliance.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination appliance.
dstpath (STRING): Replication destination path.
rplerror (STRING): Replication error message.
waflerror (STRING): WAFL® error.

repository events

repository.cleanup events

Repository.Cleanup.BaseFile

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when there is a failure in the Infinite Volume while creating a stream on a nonexistent file, and the base file was left behind in the Vserver.

Corrective Action

Delete the file created from the mounted file system. Example: To delete a file from the Windows cmd shell: C:\Users\Administrator>del Z:\File.txt If the problem persists, contact NetApp technical support.

Syslog Message

Failure happened in the Infinite Volume while creating a stream on a nonexistent file, and the base file (handle: %s) was left behind in Vserver %u.

Parameters

filehandle (STRING): File handle of the base file that was created.
vserverId (INT): Vserver ID for which the error occurred.

repository.create events

Repository.Create.Placement.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a create request from a client, when the Infinite Volume namespace redirector encounters one or more of the following: 1. It made several attempts to create the item on some data constituents, but failed. It is possible that some data constituents, or aggregates in the Infinite Volume, or nodes in the cluster are not in a healthy state. 2. It could not find a data constituent in which to create the requested item. It is possible that the Infinite Volume is misconfigured or the configuration state of the Infinite Volume is corrupted.

Corrective Action

Verify that the Infinite Volume is configured properly. Verify that all the constituents are online by using the 'volume show' command with the '-constituents' option. Verify that all the aggregates for the Infinite Volume are online by using the 'aggregate show' command. If the problem persists or you need assistance, contact

NetApp technical support.

Syslog Message

A create request failed on the Infinite Volume. Reason: %s. This occurred in VServer %u.

Parameters

reason (STRING): Reason for the failure.
vserverId (INT): Vserver ID for which the error occurred.

repository.ctpupdate events

Repository.CTPUpdate.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when an update to the Create Time Placement (CTP) ruleset fails.

Corrective Action

Retry updating the ruleset by using the "vserver data-policy import" command. If the problem persists, contact NetApp technical support.

Syslog Message

Create Time Placement (CTP) ruleset update failed on the Infinite Volume. Reason: %s.

Parameters

reason (STRING): Reason for the failure.

repository.dangling events

Repository.Dangling.Data.File

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a client file operation request, when the Infinite Volume namespace redirector runs into failures that prevent it from cleaning up a file on a data constituent. This dangling file is unnecessarily consuming resources.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failures caused the Infinite Volume namespace redirector to leave a dangling file (handle: %s) on a data constituent in Vserver %u.

Parameters

filehandle (STRING): File handle of the file that is left dangling in the data constituent.
vserverId (INT): Vserver ID for which the error occurred.

Repository.Dangling.Redirector

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a client file operation request, when the Infinite Volume namespace redirector runs into a dangling redirector file on the namespace constituent.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failures caused the Infinite Volume namespace redirector to leave a dangling redirector file %s on the namespace constituent in Vserver %u.

Parameters

filehandle (STRING): File handle of the redirector file that is left dangling in the namespace constituent.
vserverId (INT): Vserver ID for which the error occurred.

repository.dc events

Repository.DC.Dangling.Lock

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a client file operation request, when the Infinite Volume runs into failures that prevent it from cleaning up a transient or client-originated lock on the data constituent. If there are enough of these dangling locks on the data constituent, the lock resource might be exhausted, which causes certain operations to fail.

Corrective Action

Clear the reported lock ID by using the 'vserver locks break' command at the advanced privilege level.

repository.inconsistent events

Repository.Inconsistent.Attribute

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a client file operation request, when the Infinite Volume namespace redirector detects an inconsistency in the file attributes for a file in the namespace constituent.

Corrective Action

Contact NetApp technical support.

Syslog Message

While servicing a protocol request, the Infinite Volume namespace redirector detected an inconsistency in the attributes of a file (handle: %s) in the namespace constituent in Vserver %u.

Parameters

filehandle (STRING): File handle of the file for which the error occurred.
vserverId (INT): Vserver ID for which the error occurred.

repository.invalid events

Repository.Invalid.Redirector

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs during a client file operation request, when the Infinite Volume namespace redirector detects an internal inconsistency in a redirector file in the namespace constituent.

Corrective Action

Contact NetApp technical support.

Syslog Message

While servicing a protocol request, the Infinite Volume namespace redirector detected an internal inconsistency in a file (handle: %s) in the namespace constituent in Vserver %u.

Parameters

filehandle (STRING): File handle of the file for which the error occurred.
vserverId (INT): Vserver ID for which the error occurred.

repository.ns events

Repository.NS.Dangling.Lock

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs during a client file operation request, when the Infinite Volume namespace redirector runs into failures that prevent it from cleaning up a transient lock on the namespace constituent. If there are enough of these dangling locks on the namespace constituent, the lock resource might be exhausted, which causes certain operations to fail.

Corrective Action

Clear the reported lock ID by using the 'vserver locks break' command at the advanced privilege level.

Syslog Message

Failures prevented the cleanup of a transient lock with UUID %s on the namespace constituent in Vserver %u.

Parameters

lockid (STRING): Lock UUID of the lock that is left dangling.
vserverId (INT): Vserver ID for which the error occurred.

Repository.NS.Dangling.Streams

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when a client wants to truncate the file and only the truncation of the data constituent file succeeds while the redirector truncation fails. This leaves behind dangling stream redirectors. These dangling stream redirectors cannot be read or modified and unnecessarily consume resources on the namespace constituent.

Corrective Action

Go to controller system shell, and delete all streams corresponding to that redirector. Example of deleting dangling streams from the system shell: bash-3.2$ ls /clus/vs0/NS/File.txt/nmatr%/ s1.txt s2.txt bash-3.2$ sudo rm -f /clus/vs0/NS/File.txt/nmatr%/* If the problem persists, contact NetApp technical support.

Syslog Message

Failures caused the Infinite Volume namespace redirector to leave dangling stream redirectors on file (handle: %s) on the namespace constituent in Vserver %u.

Parameters

filehandle (STRING): File handle of the redirector base file that has dangling stream redirectors.
vserverId (INT): Vserver ID for which the error occurred.

repository.snapshot events

Repository.Snapshot.Access

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when the Infinite Volume namespace redirector restores access to the Infinite Volume Snapshot(tm) copies after it recovers from an internal communication problem that had previously shut down access.

Corrective Action

(None).

Syslog Message

Infinite Volume namespace redirector restored access to the Snapshot copies after it recovered from an internal communication problem.

Parameters

(None).

Repository.Snapshot.NoAccess

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when the Infinite Volume namespace redirector cannot get access to Snapshot(tm) mapping updates due to an internal communication issue, so it prevents access to the Infinite Volume Snapshot copies. Several scenarios can cause this condition, including the following: 1. The cluster administrator has made the node ineligible for the cluster. 2. Intense system loading can cause this problem

temporarily.

Corrective Action

If the cluster administrator has made the node ineligible for the cluster (through "cluster modify"), make the node eligible again. If the condition persists or occurs repeatedly, other serious issues might be the cause and you should contact NetApp technical support.

Syslog Message

Infinite Volume namespace redirector shut down access to the Snapshot copies due to an internal communication problem.

Parameters

(None).

respmon events

revert events

revert.ufmt events

revert.ufmt.cap.tier.full

Severity

ALERT

Description

This message occurs when the revert operation to convert the unified object format is paused because the FabricPool aggregate has reached the maximum supported size of the capacity tier. The revert scan will resume when additional space is available in the capacity tier.

Corrective Action

Contact NetApp technical support.

Syslog Message

Revert operation to the convert the object format from "unified" to "native" is paused on aggregate "%s" because the capacity tier usage has reached its maximum allowed size.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.config.invalid

Severity

NOTICE

Description

This message occurs when the revert operation to convert the unified object format from "unified" to "native" is paused because the object store configuration associated with the FabricPool aggregate is not ready.

Corrective Action

This condition might be transient and the revert operation should resume automatically. If the problem persists, contact NetApp technical support.

Syslog Message

Revert operation to convert the object format from "unified" to "native" is paused on FabricPool aggregate "%s" because the associated object store configuration is not ready.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.mirror.not.sync

Severity

NOTICE

Description

This message occurs when the revert operation to convert the unified object format from "unified" to "native" is paused because the FabricPool mirror is not in sync with the primary object store attached to the FabricPool aggregate.

Corrective Action

This condition might be transient, and the revert operation should resume automatically when the FabricPool mirror is synced with the attached primary object store. If the problem persists, contact NetApp technical support.

Syslog Message

Revert operation to convert the object format from "unified" to "native" is paused on FabricPool aggregate "%s" because the FabricPool mirror is not in sync with the attached primary object store.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.objstore.failed

Severity

ERROR

Description

This message occurs when the revert operation to convert the unified object format is paused because it is unable to read objects from an unresponsive object store. Object format revert operation will resume when the object store is responsive.

Corrective Action

Verify that your intercluster LIF is online and functional by using the "network interface show" command. Also, check network connectivity to the object store server by using the "ping" command over the destination node intercluster LIF. Additionally, ensure that the configuration of your object store has not changed, and that login and connectivity information is still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Revert operation to convert the object format from "unified" to "native" is paused on aggregate "%s" because the object store is unavailable.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.perf.tier.full

Severity

ALERT

Description

This message occurs when the revert operation to convert the unified object format is paused because the FabricPool aggregate does not have enough free space to tier cold data. The revert scan will resume when additional space is available in the performance tier.

Corrective Action

Either free space in the performance tier of the aggregate by moving volumes, removing volumes, or deleting data, or add space to the performance tier of the aggregate by adding disks.If the problem persists, Contact NetApp technical support.

Syslog Message

Revert operation to the convert the object format from "unified" to "native" is paused on aggregate "%s" because the current available space in the performance tier is below the minimum allowed size.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.tlog.disabled

Severity

NOTICE

Description

This message occurs when the revert operation to convert the unified object format is paused because FabricPool tiering is temporarily disabled on a MetroCluster setup. The object format revert will resume when FabricPool tiering is enabled.

Corrective Action

(None).

Syslog Message

Revert operation to convert the object format from "unified" to "native" is paused on aggregate "%s" because FabricPool tiering is disabled.

Parameters

aggregate_name (STRING): Aggregate name.

revert.ufmt.tlog.full

Severity

NOTICE

Description

This message occurs when the revert operation to convert the unified object format is paused because FabricPool tiering is temporarily suspended due to insufficient space to stage new objects. Tiering will resume when space is available after writing existing objects to the object store. The revert scan will resume when FabricPool tiering is enabled.

Corrective Action

(None).

Syslog Message

Revert operation to convert the object format from "unified" to "native" is paused on aggregate "%s" because FabricPool tiering is temporarily suspended on the aggregate.

Parameters

    aggregate_name (STRING): Aggregate name.

revert.ufmt.tlog.punch.pause

Severity

    NOTICE

Description

    This message occurs when the revert operation to convert unified object format is paused because the FabricPool aggregate has complete unified format objects waiting to be tiered to the object store. The revert operation will resume when FabricPool tiering has completed tiering all waiting "unified format" objects to the object store.

Corrective Action

    (None).

Syslog Message

    The operation to revert the object format to the native format paused on aggregate "%s" because the tiering of unified format objects to the object store is pending.

Parameters

    aggregate_name (STRING): Aggregate name.

revertto events

revertto.force events

revertTo.force

Severity

NOTICE

Description

This message occurs when a revert-to process is being initiated with the "force" flag, and configuration errors have been detected.

Corrective Action

(None).

Syslog Message

Forcing revert in spite of detected configuration errors.

Parameters

(None).

revertto.start events

revertTo.start

Severity

NOTICE

Description

This message occurs when a revert to process is started.

Corrective Action

(None).

Syslog Message

Starting revert to %s.

Parameters

target_release (STRING): Target release name to which the revert process was started.

revertto.system events

revertTo.system.reboot

Severity

NOTICE

Description

This message occurs when the system is rebooting to complete the revert process. During reboot, the RAID subsystem will be reverted. After the RAID subsystem reverts and the system reboots, the revert process is complete.

Corrective Action

(None).

Syslog Message

System reverting to work with Data ONTAP %s.

Parameters

target_release (STRING): Target release name to which the revert process was started.

rlib events

rlib.duplicate events

rlib.duplicate.ip.detected

Severity

ERROR

Description

This message occurs when an interconnect link IP address on this node has a conflict with an IP address on another node in the cluster.

Corrective Action

Reboot either this node or the other node reported in this event, while making sure that all interconnect links on the two nodes are connected, up, and operational.

Syslog Message

Interconnect link IP address %s on this node (System ID %d) is also in use by another node (System ID %d) in the cluster.

Parameters

dupIP (STRING): Conflicting IP address.
localSysid (LONGINT): System ID of the local node.
remoteSysid (LONGINT): System ID of the remote node.

rlib.ifconfig events

rlib.ifconfig.linkEvent

Severity

NOTICE

Description

This event is generated when there is a link event on the MCC/IP managed interface.

Corrective Action

(None).

Syslog Message

(None).

Parameters

ifname (STRING): The name of the interface
eventType (STRING): The event type

rlib.mccip events

rlib.mccip.config.failure

Severity

ERROR

Description

This event is generated if any error occurs while configuring MCC/IP.

Corrective Action

(None).

Syslog Message

Configuration error has occured in "%s", while setting up "%s ",with value: "%s", (error string='%s', error code=%d).

Parameters

objectOper (STRING): Operation being executed.
objectType (STRING): Type of Object - IP address/ Netmask/ Interface / Bootarg
objectValue (STRING): Value of IP address/ Netmask/ Interface / Bootarg
errorString (STRING): The error string
errNum (INT): The internal error code

rlib.mccip.config.missing

Severity

NOTICE

Description

This event is generated if any of the environment data relating to the configuration of an MCC/IP DR port is missing on boot.

Corrective Action

(None).

Syslog Message

(None).

Parameters

objectOper (STRING): Interface being configured.

rlib.remote events

rlib.remote.node.event

Severity

NOTICE

Description

This event is generated to print information about remote node such as IP address and sysid along with the event that occurred

Corrective Action

(None).

Syslog Message

(None).

Parameters

peerIP (STRING): IP address of remote node
peerSysid (LONGINT): Sysid of remote node
localIP (STRING): IP address of local node
localPort (STRING): Local rdma port name
eventDesc (STRING): Information about the event (Optional)

rlib.remote.node.update

Severity

NOTICE

Description

This event is generated when remote node sysid has changed as a part of headswap

Corrective Action

(None).

Syslog Message

(None).

Parameters

oldSysid (LONGINT): Old sysid of remote node
sysid (LONGINT): New sysid of remote node

rlm events

rlm.driver events

rlm.driver.hourly.stats

Severity

ERROR

Description

This message occurs when the system encounters an error while trying to get hourly statistics from the Remote LAN Module (RLM).

Corrective Action

1. Issue the 'rlm status' command at the Data ONTAP® prompt to check whether the RLM is online. 2. If the RLM is online and this message persists, issue the 'rlm reboot' command at the Data ONTAP prompt to reboot the RLM.

Syslog Message

The software driver for the Remote LAN Module (RLM) detected a problem: %s.

Parameters

reason (STRING): This error could be due to a communication error with the RLM or because the RLM is not operational.

rlm.driver.mailhost

Severity

ERROR

Description

This message occurs when Remote LAN module (RLM) setup verifies whether a mailhost specified in ONTAP can be reached. In this case, RLM setup cannot connect to the specified mailhost.

Corrective Action

1. Verify that a valid mailhost is configured in Data ONTAP by checking the system AutoSupport configuration. 2. Ensure that Data ONTAP can successfully connect to the specified mailhost by invoking test command to invoke AutoSupport.

Syslog Message

RLM setup could not access the mailhost specified in Data ONTAP.

Parameters

(None).

rlm.driver.network.failure

Severity

ERROR

Description

This message occurs when the system encounters a failure during network configuration of the Remote LAN Module (RLM). The system cannot assign the RLM a DHCP (Dynamic Host Configuration Protocol) or fixed IP address.

Corrective Action

1. Check whether the network cable is correctly plugged into the RLM network port. 2. Check the link status LED on the RLM. 3. The RLM supports a 10/100 Ethernet network in autonegotiation mode. Verify that the network that the RLM is connected to has autonegotiation enabled.

Syslog Message

The network configuration of the Remote LAN Module (RLM) failed due to cable or network errors.

Parameters

(None).

rlm.driver.timeout

Severity

ERROR

Description

This message occurs when there is a failure during communication with the Remote LAN Module (RLM) firmware.

Corrective Action

1. Issue the 'rlm status' command at the Data ONTAP® prompt to check whether the RLM is online. 2. If the RLM is operational and this message persists, issue the 'rlm reboot' command at the Data ONTAP prompt to reboot the RLM. After the reboot, this message should no longer occur. If the message occurs again, contact NetApp technical support and explain that you already performed the preceding steps.

Syslog Message

The software driver for the Remote LAN Module (RLM) detected a problem: %s.

Parameters

reason (STRING): This error could be due to a communication error with the RLM or because the RLM is not operational.

rlm.firmware events

rlm.firmware.upgrade.reqd

Severity

NOTICE

Description

This message occurs when the Remote LAN Module (RLM) firmware version and the Data ONTAP® software version are incompatible and cannot communicate correctly about a particular capability.

Corrective Action

For more information about upgrading your firmware, check your support provider's web site or knowledgebase. After the RLM is running the new firmware, this message should no longer occur. If the problem persists or you need further assistance, contact NetApp technical support.

Syslog Message

The RLM firmware %s is incompatible with Data ONTAP for %s.

Parameters

current_rlm_fw_version (STRING): Current firmware version on the RLM.
capability (STRING): RLM capability needed by Data ONTAP.

rlm.firmware.version.unsupported

Severity

NOTICE

Description

This message occurs when the firmware on the Remote LAN Module (RLM) is not an official release and must be upgraded.

Corrective Action

For more information about upgrading your firmware, check your support provider's web site or knowledgebase. After the RLM is running the new firmware, this message should no longer occur. If the problem persists or you need further assistance, contact NetApp technical support.

Syslog Message

The RLM firmware version %s is not an official release.

Parameters

current_rlm_fw_version (STRING): Current firmware version on the RLM.

rlm.heartbeat events

rlm.heartbeat.resumed

Severity

INFORMATIONAL

Description

This event is generated when the appliance detects resumption of Remote LAN Module (RLM) heartbeat notifications indicating that the RLM is now available. The earlier issue indicated by the rlm.heartbeat.stopped event has been resolved.

Corrective Action

(None).

Syslog Message

Heartbeat received from the Remote LAN Module (RLM).

Parameters

(None).

rlm.heartbeat.stopped

Severity

ERROR

Description

This event is generated when the filer does not receive Remote LAN Module (RLM) heartbeat notifications. The RLM card and the filer exchange heartbeat messages so that they can detect when one or the other is unavailable. This event is generated when the filer has not received an expected heartbeat message from the RLM.

Corrective Action

Connect to the RLM CLI and issue 1. rlm version 2. rlm config 3. priv set advanced 3.1 rlm log debug 3.2 rlm log messages 4. Run RLM system diagnostics 5. Consult RLM Troubleshooting Guide

Syslog Message

Have not received a heartbeat from the Remote LAN Module (RLM) in last %d seconds.

Parameters

max_anx (INT): Heartbeats have not been received from the Remote Lan Module (RLM) for this period of time in seconds.

rlm.network events

rlm.network.link.down

Severity

ERROR

Description

This message occurs when the Remote LAN Module (RLM) detects a link error on the RLM network port. This can happen if a network cable is not plugged into the RLM network port. It can also happen if the network that the RLM is connected to cannot run at 10/100 Mbps.

Corrective Action

1. Check whether the network cable is correctly plugged into the RLM network port. 2. Check the link status LED on the RLM. 3. The RLM supports a 10/100 Mbps Ethernet network in autonegotiation mode. Verify that the network that the RLM is connected to supports autonegotiation to 10/100 Mbps or is running at one of those speeds; otherwise, RLM network connectivity won't work.

Syslog Message

Remote LAN Module (RLM) network port link down due to cable or network errors.

Parameters

(None).

rlm.notconfigured events

rlm.notConfigured

Severity

ERROR

Description

This message occurs weekly to remind you to configure the Remote LAN Module (RLM). The RLM is a physical device that is incorporated into your system to provide remote access and remote management capabilities. To use the full functionality of RLM, you need to configure it first.

Corrective Action

1. Use the 'rlm setup' command to configure the RLM. If necessary, use the 'rlm status' command to obtain its MAC address. 2. Use the 'rlm status' command to verify the RLM network configuration. 3. Use the 'rlm test autosupport' command to verify that the RLM can send AutoSupport email. Note that AutoSupport mailhosts and recipients must be properly configured in Data ONTAP before issuing this command.

Syslog Message

The system's Remote LAN Module (RLM) is not configured. Use the 'rlm setup' command to configure it.

Parameters

(None).

rlm.orftp events

rlm.orftp.failed

Severity

NOTICE

Description

A communication error occured while sending or receiving information from the Remote Lan Module (RLM).

Corrective Action

1. Issue the 'rlm status' command at the Data ONTAP prompt to check whether the RLM is operational. 2. If the RLM is operational and this message persists, issue the 'rlm reboot' command at the Data ONTAP(tm) prompt to reboot the RLM. 3. If this message persists after the RLM has been rebooted, contact NetApp technical support.

Syslog Message

RLM communication error, %s.

Parameters

reason (STRING): This error could be due to : 1. Communication error while the information is being sent or received. 2. Remote Lan Module (RLM) being non-operational.

rlm.snmp events

rlm.snmp.traps.off

Severity

INFORMATIONAL

Description

This message occurs each time a system boots, if the advanced privilege level in Data ONTAP® was used to disable the SNMP Trap feature of the Remote LAN Module (RLM). This message also occurs when the SNMP Trap capability was disabled and a user invokes a Data ONTAP command to use the RLM to send an SNMP trap.

Corrective Action

RLM SNMP Trap support is currently disabled. To enable this feature, set the 'rlm.snmp.traps' option to On.

Syslog Message

RLM's SNMP Trap support is currently disabled. Set option 'rlm.snmp.traps' to 'On' to enable this feature.

Parameters

(None).

rlm.ssh events

rlm.ssh.access.resetup

Severity

ERROR

Description

RLM SSH access list needs to be resetup.

Corrective Action

Use 'system sp_ssh_access_list modify' CLI to resetup RLM SSH access list.

Syslog Message

RLM SSH access list needs to be resetup.

Parameters

(None).

rlm.userlist events

rlm.userlist.update.failed

Severity

ERROR

Description

There was an error while updating user information for the Remote Lan Module (RLM). When user information is updated on Data ONTAP®, the RLM is also updated with the new changes. This allows users to login to the RLM.

Corrective Action

1. Issue the 'rlm status' command at the Data ONTAP() prompt to check whether the Remote Lan Module (RLM) is operational. 2. If the RLM is operational, and this message persists, issue the 'rlm reboot' command at the Data ONTAP® prompt to reboot the RLM. 3. Retry the operation that caused the error message. 4. If this message persists after the RLM has been rebooted, contact NetApp technical support.

Syslog Message

Error updating RLM user information, %s.

Parameters

reason (STRING): User information update for the Remote Lan Module (RLM) may have failed due to : 1. Communication error with the RLM. 2. RLM may not be operational.

rpc events

rpc.unspecified events

rpc.unspecified.error

Deprecated

Deprecated as of version 9.2 where this RPC mechanism was withdrawn.

Severity

NOTICE

Description

This event is issued when turning an ypgroup update fails to occur.

Corrective Action

(None).

Syslog Message

RPC: Failed (unspecified error)

Parameters

(None).

rpc.xprt events

rpc.xprt.limit

Deprecated

Deprecated as of version 9.2 where this RPC mechanism was withdrawn.

Severity

ERROR

Description

This message occurs when the number of active connections to a side band Remote Procedure Call (RPC) reaches the limit. This limit is not configurable.

Corrective Action

To check for stale client connections, use the output from the CLI "netstat" command.

Syslog Message

Active TCP connections to side band RPC service with program number %u has reached a limit of %d connections.

Parameters

prog (INT): TCP program number of RPC service to which the connection request arrived.
max_conn (INT): Maximum number of active connections to RPC service.

rpc.xprt.vfiler.limit

Deprecated

Deprecated as of version 9.2 where this RPC mechanism was withdrawn.

Severity

ERROR

Description

This message occurs when the number of active connections to side band Remote Procedure Call (RPC) services of a vFiler unit reaches the limit. This limit is not configurable.

Corrective Action

To check for stale client connections, use the output from the CLI "netstat" command.

Syslog Message

Active TCP connections to side band RPC services of vFiler %s has reached a limit of %d connections.

Parameters

vfiler (STRING): Name of the vFiler unit to which the connection request arrived.
vf_max_conn (INT): Maximum number of active connections to sideband RPC services of this vFiler unit.

rpl events

rpl.check events

rpl.check.unusable.log.file

Severity

ERROR

Description

This message occurs when SnapMirror® Fixer detects inconsistency in the verifier log file generated by a previous SnapMirror 'check' operation. The SnapMirror 'fixer' operation will be terminated.

Corrective Action

Run the SnapMirror 'fixer' command.

Syslog Message

The SnapMirror verifier log is inconsistent and could not be used.

Parameters

(None).

rpl.fixer events

rpl.fixer.launch.autocheck

Severity

NOTICE

Description

This message occurs when SnapMirror® Fixer cannot use the log files generated by a previous SnapMirror 'check' operation. A new SnapMirror 'check' operation will be started.

Corrective Action

(None).

Syslog Message

SnapMirror Fixer could not use the %s log file. A new SnapMirror 'check' operation will be started.

Parameters

filetype (STRING): Type of SnapMirror checker log file.

rpl.snapshot events

rpl.snapshot.delete.error

Severity

ERROR

Description

This message occurs when SnapMirror® or SnapVault® cannot delete one of its snapshots.

Corrective Action

SnapMirror or SnapVault tries to delete this snapshot during the next update. However, if no further updates are possible or planned, you should delete this snapshot manually.

Syslog Message

(None).

Parameters

snapname (STRING): Snapshot copy name.
volname (STRING): Volume name.
error (STRING): WAFL® error message.

rpl.src events

rpl.src.lun.old_clone

Severity

ERROR

Description

This message occurs when the replication source finds a LUN clone in a snapshot that was created on a ONTAP version earlier than 7.3 and was attempting to transfer as a LUN clone instead of a LUN. Transferring a LUN clone in a snapshot that was created on ONTAP version earlier than 7.3 as a LUN clone might lead to divergence on the replication destination.

Corrective Action

Only SnapVault® transfers that are managed using Ontapi can get into this situation. If SnapVault® restore is using a named snapshot transfer, then choose a different named snapshot. If SnapVault® is not using named snapshot transfer, then delete the snapshot and try again.

Syslog Message

%s transfer from %s:%s to %s:%s is attempting to transfer a LUN clone from a pre ONTAP 7.3 snapshot %s to the destination as a LUN clone.

Parameters

transfer_type (STRING): Type of the transfer.
source_filer (STRING): System name of the replication source.
source_path (STRING): Path of the qtree where the clones reside.
dest_filer (STRING): System name of the replication destination.
dest_path (STRING): Replication destination path.
snapname (STRING): Name of the backup snapshot of the LUN clone.

rpt events

rpt.disk events

rpt.disk.uuid.gen.failed

Severity

ERROR

Description

This message occurs when the generation of a disk UUID fails.

Corrective Action

Investigate the Directed Attached (DA) disk to fix the error, and then reboot the device.

Syslog Message

Disk name %s and disk unit number %d of RAID passthru with error message %s.

Parameters

d_name (STRING): Disk name.
d_unit (INT): Unit number.
errmsg (STRING): Whether the device failed or is misconfigured.

rsh events

rsh.enabled events

rsh.enabled

Severity

NOTICE

Description

This message occurs when rsh is enabled in the cluster using the (privilege: advanced) "security protocol" command.

Corrective Action

(None).

Syslog Message

Insecure protocol service rsh has been enabled in the cluster.

Parameters

(None).

rsh.firewall events

rsh.firewall.policy.remove

Severity

NOTICE

Description

This message occurs when rsh is automatically removed from firewall policies during a revert operation from Data ONTAP® 9.0 to 8.3. Rsh is removed because it is an insecure protocol and it is by default disabled in Data ONTAP 9.0. In Data ONTAP 8.3, the presence of rsh in firewall policies after a revert operation enables rsh. To prevent this, the rsh firewall policy is removed during the operation.

Corrective Action

Use the "system services firewall policy create" command to reenable rsh.

Syslog Message

Rsh removed from firewall policy because of Data ONTAP revert operations. Rsh is now disabled.

Parameters

(None).

rsh.rcmd events

rsh.rcmd.port.bind

Severity

ERROR

Description

This message occurs when there is an error in binding a reserved port.

Corrective Action

(None).

Syslog Message

rcmd.c: Bind error %d on reserved port %d.

Parameters

errNum (INT): Error number.
port (INT): Port number.

rsh.rcmd.port.used

Severity

ERROR

Description

This message occurs when there is no port available for binding to a socket, because all the reserved ports are in use.

Corrective Action

(None).

Syslog Message

rcmd.c: All reserved ports have been used.

Parameters

(None).

rsh.setsockopt events

rsh.setsockopt.failure

Severity

ERROR

Description

This message occurs when the setsockopt option on the RemoteShell(RSH) socket fails; RSH is not available.

Corrective Action

Use the error message to determine the problem.

Syslog Message

RSH setsockopt error: option level '%s', option value '%s', error code '%d', error message '%s'.

Parameters

socketlevel (STRING): Socket option level parameter.
socketoption (STRING): Socket option value parameter.
errorcode (INT): Error code returned from setsockopt.
reason (STRING): Error message for the failure.

rsh.socket events

rsh.socket.failure

Severity

ERROR

Description

The rshd daemon could not create a socket.

Corrective Action

Disable and enable rshd daemon using options rsh.enable.

Syslog Message

RSH socket error: %s.

Parameters

reason (STRING): The reason why the rshd daemon could not create a socket.

rshd events

rshd.failure events

rshd.failure

Severity

ERROR

Description

This event is generated after rshd failed to start.

Corrective Action

Restart the rsh daemon for the affected vfiler by using the vfiler run command to set the rsh.enable option to off and then to on for that vfiler.

Syslog Message

rshd failed to start for vfiler %s

Parameters

vfilername (STRING): The name of the vfiler that attempted to start rshd

s3 events

s3.bucket events

s3.bucket.invalid.accessKey

Severity

ERROR

Description

This message occurs when the access key is invalid and it has been used to access the S3 bucket/object.

Corrective Action

Verify that the access key is valid and it has been configured correctly before accessing the bucket/object.

Syslog Message

S3 %s operation failed while accessing bucket "%s" on S3 server %s because access key "%s" is invalid.

Parameters

operation (STRING): S3 request name.
bucket (STRING): Name of the S3 bucket.
serverHostname (STRING): Hostname of the S3 server.
accessKey (STRING): Access key.

s3.bucket.notFound

Deprecated

This event is renamed to "osc.bucket.notFound"

Severity

ERROR

Description

This message occurs when the bucket is not found while trying to access an S3 object.

Corrective Action

Verify that the bucket has been created on the S3 server and the bucket name has been correctly configured in ONTAP before accessing the bucket.

Syslog Message

Bucket "%s" not found on S3 server %s when performing %s operation.

Parameters

bucket (STRING): Name of the S3 bucket.
serverHostname (STRING): Hostname of the S3 server.
operation (STRING): S3 request name.

s3.bucket.signatureMismatch

Deprecated

This event is renamed to "osc.signatureMismatch"

Severity

ERROR

Description

This message occurs when the request signature sent to the S3 server does not match the signature calculated by the server. This could be due to either an incorrect secret key or an internal ONTAP software error in calculating the signature.

Corrective Action

Verify that the secret access key is configured correctly. If it is correct, contact NetApp technical support for assistance.

Syslog Message

S3 %s operation server-calculated request signature does not match the signature sent to S3 server %s for bucket "%s".

Parameters

operation (STRING): S3 request name.
serverHostname (STRING): Hostname of the S3 server.
bucket (STRING): Name of the S3 bucket.

saml events

saml.cfg events

saml.cfg.idp.download

Severity

NOTICE

Description

This message occurs when the Security Assertion Markup Language (SAML) Service Provider (SP) configuration fails to download the Identity Provider (IdP) metadata. Any partial configuration is removed automatically on this node only.

Corrective Action

Verify that the IdP metadata URI is reachable via the clustered Data ONTAP® "network ping" or "network ping6" command. If you need further assistance, contact NetApp technical support.

Syslog Message

SAML SP IdP metadata download from %s was not completed successfully. Error: '%s'.

Parameters

idp_uri (STRING): IdP metadata location.
reason (STRING): Reason for the download failure.

saml.cfg.setup.incomplete

Severity

NOTICE

Description

This message occurs when the Security Assertion Markup Language (SAML) Service Provider (SP) configuration is not completed successfully. Any partial configuration is removed automatically on this node only. This failure does not prevent authentication of any user. However, the Identity Provider (IdP) cannot retrieve the SP metadata from this node. This node automatically attempts to complete the configuration when the 'security saml modify -is-enabled true' command is executed.

Corrective Action

Use the 'security saml status show' command to see the status of all nodes. Verify the health of all nodes. To create the configuration without enabling SAML authentication, use the 'security saml delete' and 'security saml create' commands to re-create the configuration. If this behavior persists, contact NetApp technical support.

Syslog Message

SAML SP configuration creation was not completed successfully.

Parameters

(None).

saml.cfg.sync.fail

Severity

ERROR

Description

This message occurs when the Security Assertion Markup Language (SAML) Service Provider (SP) configuration fails to synchronize on this node. This synchronization is most commonly performed due to SAML SP configuration changes or as new nodes come online. This failure might impact SAML-based authentication of any user, but will not impact data access.

Corrective Action

Use the 'security saml status show' command to see the status of all nodes. Verify the health of all nodes. If this behavior persists, contact NetApp technical support.

Syslog Message

SAML SP configuration modification was not completed successfully.

Parameters

(None).

san events

san.changedhomenode events

san.ChangedHomeNode

Severity

NOTICE

Description

This message occurs when the home node of an existing SAN LIF is modified during LIF placement.

Corrective Action

(None).

Syslog Message

Home node changed from %s to %s while placing LIF %s in Vserver %s.

Parameters

old_node_name (STRING): Name of the old home node of the existing SAN LIF.
node_name (STRING): Name of the new home node of the existing SAN LIF.
lif (STRING): LIF name.
vserver_name (STRING): Vserver name.

san.changedhomeport events

san.ChangedHomePort

Severity

NOTICE

Description

This message occurs when the home port of an existing SAN LIF is modified during LIF placement.

Corrective Action

(None).

Syslog Message

Home port changed from %s to %s while placing LIF %s in Vserver %s.

Parameters

old_port_name (STRING): Name of the old home port of the existing SAN LIF.
port_name (STRING): Name of the new home port of the existing SAN LIF.
lif (STRING): LIF name.
vserver_name (STRING): Vserver name.

san.duplicateipaddress events

san.DuplicateIpAddress

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations of clustered ONTAP®, when an IP LIF is created in the source cluster, but one of the storage virtual machines (SVMs) in the destination cluster is already configured with an IP LIF having the same IP address.

Corrective Action

Provide a unique IP address for the primary SVM IP LIF when creating or modifying the LIF in the source cluster. After modifying the IP address, check that SVM configuration state is healthy by using the "metrocluster vserver show -vserver <vserver>" command. If Vserver configuration state is not healthy, resynchronize the SVM with its partner by using the "metrocluster vserver resync" command.

Syslog Message

One of the SVM's in the destination cluster is configured with an %s LIF with the same IP address %s. Provide a different unique IP address for the primary SVM %s LIF %s when creating or modifying the LIF in the source cluster.

Parameters

destination_data_protocol (STRING): Data protocol of the destination storage virtual machine (SVM) LIF.
IpAddress (STRING): IP address existing in the destination cluster.
primary_data_protocol (STRING): Data protocol of the primary SVM LIF.
lif (STRING): Name of the primary SVM IP LIF.

san.duplicatewwpn events

san.DuplicateWWPN

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations of clustered Data ONTAP®, when an FC LIF is created in the source cluster, but one of the Vservers in the destination cluster is already configured with an FC LIF having the same WWPN.

Corrective Action

Provide a unique WWPN for the primary Vserver FC LIF when creating or modifying the LIF in the source cluster.

Syslog Message

One of the Vservers in the destination cluster is configured with an FC LIF with the same WWPN %s. Provide a different unique WWPN for the primary Vserver FC LIF %s when creating or modifying the LIF in the source cluster.

Parameters

wwpn (STRING): WWPN existing in the destination cluster.
lif (STRING): Name of the primary Vserver FC LIF.

san.fcadapter events

san.fcadapter.init.failure

Severity

ERROR

Description

This message occurs when FC adapters hosting LIFs fails to initialize during node boot.

Corrective Action

Reboot the affected node. If the problem persists, contact NetApp technical support.

Syslog Message

The following FC adapters with configured LIFs failed to initialize: %s.

Parameters

adapters (STRING): List of FC adapters that failed to initialize.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

san.fcnvmeunsupportedport events

san.FcNvmeUnsupportedPort

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP has an FC NVMe (Nonvolatile Memory Express) logical interface (LIF) hosted on an unsupported FC port.

Corrective Action

Use the "fcp adapter show -fields data-protocols-supported" command to view the list of valid Fibre-Channel ports in the fabric. Identify the Fibre-Channel ports that supports FC-NVMe LIFs with the help of the "data-protocols-supported" field. Bring down the FC-NVMe LIF using the "network interface modify -vserver <vserver_name> -lif <lif_name> -status-admin down" command and move the FC-NVMe LIF to an FC port which support FC-NVMe LIFs using the "network interface modify -vserver <vserver_name> -lif <lif_name> -home-port <FC_NVME_LIF_supported_FC_port_name> -home-node <Node_name_of_supported_FC_port>" command. Bring the FC-NVMe LIF back up using the "network interface modify -vserver <vserver_name> -lif <lif_name> -status-admin up" command, run the "metrocluster check run" command and then verify that the LIF placement succeeded by using the "metrocluster check lif show -vserver <vserver_name> -lif <lif_name>" command.

Syslog Message

Port "%s" on node "%s" does not support hosting FC-NVMe LIF "%s".

Parameters

> **port** (STRING): Unsupported port that hosts the FC-NVMe LIF.
> **node** (STRING): Name of the node on which the LIF is hosted.
> **lif** (STRING): Name of the FC-NVMe LIF hosted on unsupported FC port.

san.initiator events

san.initiator.login

Severity

> NOTICE

Description

> This message occurs when ONTAP detects that an initiator which was previously not logged on is now logged on.

Corrective Action

> (None).

Syslog Message

> Missing login for initiator "%s", Vserver "%s", portset "%s", has been logged on.

Parameters

> **initiator** (STRING): Initiator that was previously not logged on.
> **vserver** (STRING): Name of the Vserver.
> **portset** (STRING): Name of the portset that the initiator must be logged in to.
> **vserver_uuid** (STRING): UUID of the Vserver.

san.initiator.login.missing

Severity

> NOTICE

Description

> This message occurs when ONTAP detects that an initiator configured in one or more igroups is not logged in, which is required to ensure full SAN connectivity. Access to LUNs might be disrupted if a failover occurs.

Corrective Action

> Verify the host and fabric configuration to ensure connectivity to the node.

Syslog Message

> Initiator "%s" is not logged in to any LIFs on this node for Vserver "%s", portset "%s". Access to LUNs might be disrupted if a failover occurs.

Parameters

> **initiator** (STRING): Initiator that is not logged in.
> **vserver** (STRING): Name of the Vserver.
> **portset** (STRING): Name of the portset that the initiator must be logged in to.
> **vserver_uuid** (STRING): UUID of the Vserver.

san.initiator.login.not.req

Severity

NOTICE

Description

This message occurs when ONTAP detects that an initiator which was previously not logged on no longer needs to be logged on.

Corrective Action

(None).

Syslog Message

Missing login for initiator "%s", Vserver "%s", portset "%s" is no longer required.

Parameters

initiator (STRING): The initiator that was previously not logged on.
vserver (STRING): Name of the Vserver.
portset (STRING): Name of the portset that the initiator was not logged on to.
vserver_uuid (STRING): UUID of the Vserver.

san.iscsilifrepaired events

san.iscsiLifRepaired

Severity

NOTICE

Description

This message occurs when an iSCSI LIF is repaired during Vserver initialization. The LIF did not have a relative target port ID (rtpid) assigned, so a unique ID was associated with this LIF.

Corrective Action

None.

Syslog Message

The iSCSI LIF "%s" on Vserver "%s" was repaired during Vserver initialization. The LIF did not have a relative target port ID (rtpid) assigned, so a unique ID was associated with this LIF.

Parameters

lif_name (STRING): Igroup name.
vserver_name (STRING): Vserver name.

san.lifmove events

san.lifmove.fail

Severity

EMERGENCY

Description

This message occurs when a LIF move failed and the recovery action to restore the LIF has also failed. LUNs are no longer accessible through this LIF. The LIF must be recovered manually.

Corrective Action

Restore the LIF using the 'network interface create' command. Also, restore any iscsi access list settings and FQDN settings using 'iscsi interface' commands. Specific recovery commands are listed in the 'recover_commands' parameter. For more information or assistance, contact NetApp technical support.

Syslog Message

Moving LIF %s of vserver %s from %s:%s to %s:%s failed. Manual recovery required.

Parameters

lif_name (STRING): LIF name.
vserver (STRING): Vserver name.
src_node (STRING): LIF was moving from this node.
src_port (STRING): LIF was moving from this port.
dest_node (STRING): LIF was moving to this node.
dest_port (STRING): LIF was moving to this port.
address (STRING): LIF address.
recovery_commands (STRING): Commands to recover the LIF and associated settings.

san.lifmoveafterswitchback events

san.lifmoveafterswitchback

Severity

ERROR

Description

This message occurs during MetroCluster(tm) switchback, when a LIF cannot be placed on one of the disaster recovery (DR) nodes because it is offline. The LIF will be placed on the HA partner of the DR node.

Corrective Action

After the MetroCluster switchback operation is completed successfully, bring online the MetroCluster DR node. Change the home node of the LIF to the MetroCluster DR node by using the "network interface modify" command.

Syslog Message

MetroCluster DR node %s is offline. The LIF %s belonging to Vserver %s will be placed on the HA partner node %s.

Parameters

dr_node_name (STRING): Name of the MetroCluster DR node that is offline.
lif (STRING): LIF name.
vserver_name (STRING): Vserver name.
node_name (STRING): Name of the HA partner node of the MetroCluster DR node.

san.lifrepfieldsmissing events

san.LifRepFieldsMissing

Severity

ERROR

Description

This message occurs when the system cannot replicate a SAN logical interface (LIF) in a MetroCluster(tm) configuration, because one or more attributes of the source LIF cannot be determined.

Corrective Action

Verify that the home node of the LIF created or modified on the primary cluster is up. Also verify that the LIF's operational status is up, by using the "network interface show -vserver <vserver_name> -lif <lif_name>-fields status-oper" command. Check whether the Vserver configuration state is healthy by using the "metrocluster vserver show -vserver <vserver_name>" command. If the configuration state is unhealthy, resynchronize the Vserver with its partner by using the "metrocluster vserver resync" command.

Syslog Message

Attempted LIF replication failed on the destination cluster node %s for SAN LIF %s for Vserver %s.

Parameters

node (STRING): Name of the destination cluster node (DR partner) that attempted LIF replication.
lif (STRING): Name of the SAN LIF.
vserver (STRING): Name of the Vserver.

san.lifspernodelimit events

san.LifsPerNodeLimit

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP cannot replicate a SAN or NVMe logical interface (LIF) in the destination cluster due to the LIF limits per node per Vserver.

Corrective Action

Make sure all the nodes are online by running "storage failover show" command on both the clusters. If a node is taken-over by its HA partner, giveback the node using "storage failover giveback -ofnode <name_of_node_to_giveback>". Once the nodes are online and healthy, run the "metrocluster vserver resync -vserver <vserver_name>" from the source cluster. Verify the vserver's configuration-state is healthy using "metrocluster vserver show -vserver <vserver_name>" command. Contact technical support for assistance if configuration-state of the vserver does not change to healthy.

Syslog Message

Metrocluster does not support more than %s %s LIFs per node per Vserver.

Parameters

limit (STRING): LIF limit supported on Metrocluster
data_protocol (STRING): Data protocol of the LIF that exceeds the LIF per node per Vserver limit.

san.mccpurgeverifyfailed events

san.MCCPurgeVerifyFailed

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered Data ONTAP® systems when a SAN cache purge verify operation fails. The corresponding Vservers are not available to take part in the subsequent switchover or switchback operation until the purge verify operation succeeds.

Corrective Action

Contact NetApp technical support for assistance in purging the SAN cache.

Syslog Message

The following Vservers: %s failed in the SAN cache purge verify operation. Contact NetApp technical support for assistance in purging the SAN cache.

Parameters

vserver (STRING): List of Vservers that failed the purge verify operation.

san.mccvserverinitfailed events

san.MCCVserverInitFailed

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered Data ONTAP® systems when SAN Vserver failed to initialize during a switchover or switchback operation.

Corrective Action

Contact NetApp technical support for assistance in initialization of the SAN Vserver.

Syslog Message

The Vserver %s failed to initialize. Reason: %s. Contact NetApp technical support for assistance in initialization of the Vserver.

Parameters

vserver (STRING): The SAN Vserver that failed to initialize.
reason (STRING): The reason for failure.

san.mccvserverinitpending events

san.MCCVserverInitPending

Severity

ALERT

Description

This message occurs in MetroCluster™ configurations on clustered Data ONTAP® systems when SAN Vservers exceed the time allotted for initialization during a switchover or switchback operation. This is not a failure, but a delay in initialization.

Corrective Action

Contact NetApp technical support for assistance in analyzing the reason for delay in Vserver initialization.

Syslog Message

The following Vservers: %s exceeded the time allotted (%u seconds) for Vserver initialization. Contact NetApp technical support to analyze the reason for delay in Vserver initialization.

Parameters

pending_vservers (STRING): List of the SAN Vservers pending Vserver initialization.
san_budget_in_msecs (INT): Maximum time (in seconds) the system waits for the SAN Vservers to complete initialization during a switchover or switchback operation.

san.missinglicense events

san.MissingLicense

Severity

ERROR

Description

This message occurs during replication of the FC/iSCSI service configuration, when the required service is not licensed or has expired in the cluster.

Corrective Action

Add the missing or expired license in the cluster by using the "license add" command.

Syslog Message

%s license could be missing or expired in the cluster.

Parameters

license_name (STRING): Name of the missing license.

san.noconnectedfcport events

san.NoConnectedFCport

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP cannot replicate an FC/FC-NVMe (Nonvolatile Memory Express) logical interface (LIF) to a candidate port in the destination cluster. A candidate port is one that satisfies the following conditions: 1) It must reside on the disaster recovery (DR) partner node. 2) It must be connected to the same FC fabric as the home port of the primary Vserver FC/FC-NVMe LIF.

Corrective Action

Check the cabling to ensure that ports on the destination cluster node (DR partner) are connected to the same fabric as the source cluster port hosting the primary Vserver FC/FC-NVMe LIF. Use the "fcp adapter show -fields fabric-name" command to view the port-fabric connectivity information. After ensuring proper fabric connectivity, run the "metrocluster check lif repair-placement" command on the source cluster with the Vserver name and LIF name as inputs to perform lif placement followed by the "metrocluster check lif show" command to verify the results of the command.

Syslog Message

There are no ports on node "%s" connected to fabric "%s" in the destination cluster. Cannot place "%s" LIF "%s" hosted on the source cluster port %s of %s adapter type for Vserver "%s".

Parameters

node (STRING): Name of the destination cluster node (DR partner) that does not have a port connected to the fabric.
fabric_name (STRING): Name of the fabric that the source cluster port hosting the primary Vserver FC/FC-NVMe LIF is connected to.
data_protocol (STRING): Data Protocol of the FC/FC-NVMe LIF.
lif (STRING): Name of the FC/FC-NVMe LIF to be placed.
port (STRING): Source cluster port that hosts the primary Vserver FC/FC-NVMe LIF.
adapter_type (STRING): Adapter type of the source cluster port that hosts the primary Vserver FC/FC-NVMe LIF.
vserver (STRING): Name of the secondary Vserver in the MetroCluster relationship.

san.NoConnectedFCport.prim

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when the source cluster FC port that is hosting an FC/FC-NVMe LIF of the primary Vserver is not connected to any fabric. The LIF cannot be placed correctly at the destination cluster because fabric information is not available.

Corrective Action

Check the wiring of the source cluster FC port to ensure that it is connected to the fabric. Use the "fcp adapter show -fields fabric-name" command to view the port-fabric connectivity information. After ensuring proper fabric connectivity, enter the "metrocluster check lif repair-placement -vserver <vserver_name> -lif <lif_name>" command in the source cluster to intiate the LIF placement at the secondary cluster. After LIF placement has been completed, enter the "metrocluster check lif show -vserver <vserver_name> -lif <lif_name>" to see whether lif placement succeeded or not.

Syslog Message

The source cluster FC port %s that is hosting "%s" LIF %s on primary Vserver %s is not connected to any fabric.

Parameters

home_port (STRING): Name of the source cluster FC port.
data_protocol (STRING): Data Protocol of the lif.
lif (STRING): Name of the FC/FC-NVMe LIF.
vserver (STRING): Name of the primary Vserver.

san.noconnectediscsiport events

san.NoConnectediSCSIPort

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered ONTAP® systems, when ONTAP cannot replicate an IP logical interface (LIF) to a candidate port in the destination cluster. A candidate port is one that both resides on the disaster recovery (DR) partner node and is connected to the same subnet as the home port of the primary SVM IP LIF.

Corrective Action

Check the wiring of the network ports and ensure that there are ports on the destination cluster node (DR partner) that are connected to the same subnet as the source cluster port hosting the primary SVM IP LIF. If the wiring is correct but this failure is still reported when you run the "metrocluster check lif show" command, ensure that the source LIF is operationally up. If the admin-status of the source LIF is down, bring it up using the "network interface modify" command. When the source LIF is up, run the "metrocluster check lif repair-placement" command from the source cluster, with the SVM name and the LIF name as inputs. Enter the "metrocluster check lif show" command again to check whether LIF placement succeeded or not.

Syslog Message

Subnet discovery failed during LIF replication. There might not be any ports on the destination cluster node %s that are connected to subnet %s in IP space %s to place the %s LIF %s for SVM %s.

Parameters

node (STRING): Name of the destination cluster node (DR partner) that does not have a port connected to the subnet.
subnet (STRING): The subnet that the primary cluster port hosting the primary SVM IP LIF is connected to.
ipspace_name (STRING): Name of the IP space that the primary cluster port hosting the primary SVM IP LIF is connected to.
data_protocol (STRING): Data protocol of the LIF.
lif (STRING): Name of the IP LIF.
vserver (STRING): Name of the secondary SVM in the MetroCluster relationship.

san.nofcportsonnode events

san.NoFCPortsOnNode

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered Data ONTAP® systems when an attempt to place an FCP LIF on a particular node fails because the system cannot find any active ports on that node.

Corrective Action

List the offline FC ports on the DR partner node by using the "fcp adapter show -node <node_name;> -state down" command. Modify the state of the offline FC ports with the following command: "fcp adapter modify -node <node_name;> -adapter <adapter_name;> -state up". Once the FC ports in question are online, resynchronize the Vserver configuration using the "metrocluster vserver resync" command. With the command "fcp adapter show -node <node_name;>" verify that FC ports are present. If the FC ports are absent in the destination cluster node (DR partner), contact customer support to provision the FC ports.

Syslog Message

Cannot find online FC ports on Node "%s" for placing LIF "%s" in Vserver "%s".

Parameters

node_name (STRING): Node name.
lif (STRING): LIF name.
vserver_name (STRING): Vserver name.

san.nofcportwithadaptertype events

san.NoFCportwithAdapterType

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP cannot replicate an FC/FC-NVMe logical interface (LIF) to a candidate port in the destination cluster. A candidate port is one that satisfies the following conditions: 1) It must reside on the disaster recovery (DR) partner node. 2) It must be of the same adapter type (CNA/FC) as the home port of the primary Vserver FC/FC-NVMe LIF.

Corrective Action

Ensure that there are ports in the destination cluster node (DR partner) that have the same adapter type (FC/CNA) as the source cluster port that hosts the primary Vserver FC/FC-NVMe LIF. Use the "fcp adapter show -fields physical-protocol" command to view the FC port-adapter type information. Run the "metrocluster check lif repair-placement" command in the source cluster with the Vserver name and LIF name as inputs after ensuring that there are ports in the destination cluster node (DR partner) that have the same adapter type. After running the command mentioned previously, run the "metrocluster check lif show" to see whether lif placement succeeded or not.

Syslog Message

There are no ports on node "%s" in the destination cluster that have the adapter type "%s" required to host the "%s" LIF "%s" for Vserver "%s".

Parameters

node (STRING): Name of the destination cluster node (DR partner) that does not have a port of the same adapter type as the port in the source cluster.
adapter_type (STRING): Adapter type of the source cluster port that hosts the primary Vserver FC/FC-NVMe LIF.
data_protocol (STRING): Data Protocol of the lif.
lif (STRING): Name of the FC/FC-NVMe LIF to be placed.
vserver (STRING): Name of the secondary Vserver in the MetroCluster relationship.

san.noifgrpport events

san.NoIfGrpPort

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered ONTAP® systems, when ONTAP places a LIF on a physical port because an ifgrp port cannot be found on the destination cluster node (DR partner) to host an IP LIF.

Corrective Action

Ensure that ifgrp port exists; otherwise create an ifgrp port on the DR partner by taking the following steps. Run the "network port show" command to view the available ports on the DR partner. Use the "network port ifgrp create" command to create ifgrp port and "network port ifgrp add-port" command to populate an ifgrp port. After ifgrp port is available on the DR partner, run the "metrocluster check lif repair-placement" command in the source cluster with the SVM name and LIF name as inputs . After running this command, use the "metrocluster check lif show" command to see whether LIF placement succeeded or not.

Syslog Message

There are no ifgrp ports on node "%s" in IPspace "%s" to host the %s LIF "%s" for SVM "%s".

Parameters

node (STRING): Name of the DR partner that does not have an ifgrp port.
ipspace_name (STRING): Name of the IPspace.
data_protocol (STRING): Data protocol of the LIF.
lif (STRING): Name of the IP LIF.
vserver (STRING): Name of the SVM for which the IP LIF was incorrectly placed.

san.nonetworkportadaptertype events

san.NoNetworkPortAdapterType

Severity

ERROR

Description

This message occurs in MetroCluster™ configurations on clustered ONTAP® systems, when ONTAP cannot find a port on the disaster recovery (DR) node that is of the same adapter type (converged network adapter (CNA)/network interface card (NIC)) as the home port of the primary storage virtual machine (SVM) data LIF.

Corrective Action

Ensure that there are ports in the destination cluster node (DR partner) that have the same adapter type as the source cluster port that hosts the primary SVM IP LIF. Use the "net port show" and "run -node <node-name> sysconfig -ca" commands to view the network port adapter type information. After ensuring same adapter type port is available on the DR partner, run the "metrocluster check lif repair-placement" command in the source cluster with the SVM name and LIF name as inputs after ensuring that there are ports in the destination cluster node (DR partner) that have the same adapter type. After running the repair placement command, run the "metrocluster check lif show" command to see whether LIF placement succeeded or not.

Syslog Message

There are no ports on node "%s" in the destination cluster that have the adapter type "%s" in IPspace "%s" required to host the secondary SVM "%s" %s LIF "%s".

Parameters

node (STRING): Name of the destination cluster node (DR partner) that does not have a port of the same adapter type as the port in the source cluster.
adapter_type (STRING): Adapter type of the source cluster port.
ipspace_name (STRING): Name of the IPspace.
vserver_name (STRING): storage virtual machine (SVM) that owns the LIF.
data_protocol (STRING): Data protocol of the LIF.
lif (STRING): Name of the IP LIF.

san.noportsinipspace events

san.NoPortsInIpspace

Severity

ERROR

Description

This message occurs when an attempt to place an IP LIF on a particular node fails because the system cannot find any ports in an IPspace on that node.

Corrective Action

Add at least one port belonging to the node to the IPspace by using the "network port broadcast-domain add-ports" command and then resynchronize the SVM configuration using the "metrocluster vserver resync" command.

Syslog Message

Cannot find ports in IPspace "%s" on node "%s" for placing LIF "%s" in SVM "%s".

Parameters

ipspace_name (STRING): IPspace name.
node_name (STRING): Node name.
lif (STRING): LIF name.
vserver_name (STRING): SVM name.

san.nosamenamedfcport events

san.NoSameNamedFCport

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP cannot find the same named port to place an FC/FC-NVMe logical interface (LIF) in the destination cluster. A same named port is an FC port in the destination cluster that has the same name as that of the FC port in the source cluster hosting the FC/FC-NVMe logical interface (LIF).

Corrective Action

Check the admin state of the destination cluster FC port to ensure that it is up. Use the "fcp adapter show -fields status-admin" command to view the admin state of the target FC ports. After ensuring the same named port is up, enter the "metrocluster check lif repair-placement -vserver <vserver_name> -lif <lif_name>" command in the source cluster to initiate the LIF placement at the secondary cluster. After LIF placement has been completed, enter the "metrocluster check lif show -vserver <vserver_name> -lif <lif_name>" to see whether LIF placement succeeded or not.

Syslog Message

Same named FC port %s as the one in the source cluster that is hosting %s LIF %s on primary Vserver %s is not found in the destination cluster.

Parameters

home_port (STRING): Name of the source cluster FC port.
data_protocol (STRING): Data Protocol of the lif.
lif (STRING): Name of the FC/FC-NVMe LIF.
vserver (STRING): Name of the primary Vserver.

san.nosamenamediscsiport events

san.NoSameNamedIscsiPort

Severity

ERROR

Description

This message occurs when a MetroCluster™ configuration cannot be implemented, because the destination cluster for an IP logical interface (LIF) does not appear to contain a port with the same name as the one used within the source cluster.

Corrective Action

Check whether the broadcast domain of the destination cluster network port belongs to the IPspace configured for the destination SVM by using the "network ipspace show -vservers <vserver_name> -ports < same_named_network_port_name>" command. Verify that the destination cluster network port is up by using the "network port show -fields link" command. After the destination cluster network port is up, initiate the LIF placement at the destination cluster by using the "metrocluster check lif repair-placement -vserver <vserver_name> -lif <lif_name>" command in the source cluster. Verify that the LIF placement succeeded by using the "metrocluster check lif show -vserver <vserver_name> -lif <lif_name>" command.

Syslog Message

Destination cluster does not contain a port with the same name as network port %s in the source cluster that is hosting %s LIF %s on primary SVM %s.

Parameters

home_port (STRING): Name of the source cluster network port.
data_protocol (STRING): Data protocol of the LIF.
lif (STRING): Name of the IP LIF.
vserver (STRING): Name of the primary SVM.

san.nosupportedsamenamedfcport events

san.NoSupportedSameNamedFCport

Severity

ERROR

Description

This message occurs in MetroCluster(tm) configurations on clustered Data ONTAP® systems, when Data ONTAP cannot find the same named port that support the FCP/FC-NVMe data-protocol to place an FC logical interface (LIF) in the destination cluster. A same named port is an FC port in the destination cluster that has the same name as that of the FC port in the source cluster hosting the FC logical interface (LIF).

Corrective Action

Before enabling the Non-Shared Fabrics lif placement mechanism, please ensure that the same-named ports in the corresponding DR-partner node at the destination cluster have the same capabilities as the source cluster node's port.

Syslog Message

Same named FC port %s as the one in the source cluster that is hosting LIF %s on primary Vserver %s, does not support the %s data-protocol in the destination cluster.

Parameters

home_port (STRING): Name of the destination cluster FC port.
lif (STRING): Name of the FC/FC-NVMe LIF.
vserver (STRING): Name of the primary Vserver.
data_protocol (STRING): Data-Protocol of the LIF.

san.novlanport events

san.NoVlanPort

Severity

ERROR

Description

This message occurs when a clustered Data ONTAP® system is in a MetroCluster™ configuration. The system cannot find a virtual LAN (VLAN) port on the destination cluster node (that is, the DR partner) to host an IP LIF, and has instead chosen to place the LIF on a physical port.

Corrective Action

Ensure that the destination cluster node (DR partner) has ports connected to the same VLANs as in the source with the command "network port show -node <node> -fields vlan-tag". Ensure that the DR partner has VLAN interfaces similar to those in the source with the command "network port show -node <node> -fields type". If necessary, create a VLAN interface or interfaces on the DR partner node using the "network port vlan create" command. After ensuring that the proper VLAN port exists, run the "metrocluster check lif repair-placement" command on the source cluster, with the SVM name and LIF name as inputs to perform LIF placement. Then verify the results with the command "metrocluster check lif show".

Syslog Message

There are no VLAN ports with tag "%s" on node "%s" in IPspace "%s" to host the %s LIF "%s" for SVM "%s".

Parameters

node (STRING): Name of the DR partner that does not have a VLAN port.
vlan_tag (STRING): VLAN tag.
ipspace_name (STRING): Name of the IPspace.
data_protocol (STRING): Data protocol of the LIF.
lif (STRING): Name of the IP LIF.
vserver (STRING): Name of the SVM for which the IP LIF was incorrectly placed.

san.optimizedpersonality events

san.optimizedPersonality.mismatch

Severity

ERROR

Description

This message occurs when a mismatch is detected between the san-optimized personality of a node and the cluster.

Corrective Action

Contact NetApp technical support.

Syslog Message

The san-optimized value "%s" does not match the san-optimized value of the cluster.

Parameters

san_optimized (STRING): The san-optimized value for the node.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

san.replicated events

san.replicated.igroup.map.unreplicated.lun

Severity

NOTICE

Description

This message occurs when an unreplicated LUN becomes mapped to a replicated initiator group.

Corrective Action

Configure replication for the mapped, unreplicated LUN.

Syslog Message

Unreplicated LUN "%s" was mapped to replicated initiator group "%s" in Vserver %s. This does not automatically enable replication for the LUN.

Parameters

lun_path (STRING): The path of the mapped, unreplicated LUN.
igroup_name (STRING): The name of the initiator group.
vserver_name (STRING): The Vserver containing the initiator group and LUN.
vserver_uuid (STRING): The UUID of the Vserver.
igroup_uuid (STRING): The UUID of the initiator group.

san.replicated.igroup.unreplicated.lun

Severity

NOTICE

Description

This message occurs when an unreplicated initiator group becomes replicated but has unreplicated LUNs mapped to it.

Corrective Action

Configure replication for the unreplicated LUNs that are mapped to this initiator group.

Syslog Message

Initiator group "%s" in Vserver %s became replicated, but it contains unreplicated LUNs "%s". Enabling initiator group replication does not automatically enable replication for LUNs that are mapped to it.

Parameters

igroup_name (STRING): The name of the initiator group.
vserver_name (STRING): The Vserver containing the initiator group and LUNs.
lun_path (STRING): The paths of the unreplicated LUNs.
vserver_uuid (STRING): The UUID of the Vserver.
igroup_uuid (STRING): The UUID of the initiator group.

san.slmsupportcheckfailed events

san.slmSupportCheckFailed

Severity

ERROR

Description

This message occurs during reboot when SAN capability is enabled, the cluster has more than 8 nodes and lun.reporting.nodes options is disabled. It leads to host instability as the number of paths exposed exceeds the threshold that the host stacks can handle.

Corrective Action

Set the option "lun.reporting_nodes.enable" to "on" with the command "vserver options lun.reporting_nodes.enable on" and enable Selective LUN Map on existing maps with the command "lun mapping add-reporting-nodes -vserver * -path * -igroup * -local-nodes".

Syslog Message

Clusters with more than 8 nodes must have SLM support enabled.

Parameters

(None).

san.volrehostigroupcreatefailed events

san.volRehostIgroupCreateFailed

Severity

ERROR

Description

This message occurs on clustered Data ONTAP® systems, during Volume Rehost operation when Data ONTAP fails to create igroup on the destination Vserver.

Corrective Action

Please create the igroup using "igroup create".

Syslog Message

Failed to create igroup "%s" for Vserver "%s". Reason: "%s".

Parameters

igroup_name (STRING): Igroup name.
vserver_name (STRING): Vserver name.
reason (STRING): Reason for failure.

san.volrehostlunmapcreated events

san.volRehostLunMapCreated

Severity

INFORMATIONAL

Description

This message occurs on clustered Data ONTAP® systems for Volume Rehost operation on successful creation of the LUN map the destination Vserver.

Corrective Action

(None).

Syslog Message

LUN "%s" successfully mapped with igroup "%s" for Vserver "%s".

Parameters

lun_path (STRING): LUN path.
igroup_name (STRING): Igroup name.
vserver_name (STRING): Vserver name.

san.volrehostlunmapfailed events

san.volRehostLunMapFailed

Severity

ERROR

Description

This message occurs on clustered Data ONTAP® systems, during Volume Rehost operation when Data ONTAP fails to create LUN map the destination Vserver.

Corrective Action

Use "lun map create" command to create the LUN map.

Syslog Message

Failed to map LUN "%s" with igroup "%s" for Vserver "%s". Reason: "%s".

Parameters

lun_path (STRING): LUN path.
igroup_name (STRING): Igroup name.
vserver_name (STRING): Vserver name.
reason (STRING): Reason for failure.

san.volrehostsanbestpractice events

san.volRehostSANBestPractice

Severity

ERROR

Description

This message occurs on ONTAP® systems for volume rehost operation when the destination storage virtual machine (SVM) does not comply with SAN best practices.

Corrective Action

Verify SAN LIFs are present on the LUN-owning node and its high availability (HA) partner in the destination SVM. If needed, create a new SAN LIF on both the nodes by using the "network interface create" command and retry the operation.

Syslog Message

Node "%s" for SVM "%s" does not comply with SAN best practices to create LUN maps. SAN LIFs in a SVM must be available on both nodes in an HA system to create a LUN map.

Parameters

    node_name (STRING): Name of the LUN owning node.
    vserver_name (STRING): SVM name.

sas events

sas.8001 events

sas.8001.firmware.fault

Severity

NOTICE

Description

This message occurs when the PM8001 serial-attached SCSI (SAS) host bus adapter reports an adapter firmware error.

Corrective Action

(None).

Syslog Message

Detected firmware error on serial-attached SCSI (SAS) adapter %s. Scratchpad registers: 0x%x, 0x%x, 0x%x, 0x%x.

Parameters

adapterName (STRING): Name of the associated serial-attached SCSI (SAS) host bus adapter.
scratchpad0 (INTHEX): Contents of the host bus adapter scratchpad register 0.
scratchpad1 (INTHEX): Contents of the host bus adapter scratchpad register 1.
scratchpad2 (INTHEX): Contents of the host bus adapter scratchpad register 2.
scratchpad3 (INTHEX): Contents of the host bus adapter scratchpad register 3.

sas.8072 events

sas.8072.firmware.fault

Severity

NOTICE

Description

This message occurs when the PM8072 serial-att (SAS) host bus adapter reports an adapter firmware error.

Corrective Action

(None).

Syslog Message

Detected firmware error on serial-attached SCSI (SAS) adapter %s. Scratchpad register: 0x%x.

Parameters

adapterName (STRING): Name of the associated serial-attached SCSI (SAS) host bus adapter.
sctratchpad1 (INTHEX): Contents of the host bus adapter scratchpad register.

sas.adapter events

sas.adapter.bad.WWN

Severity

ERROR

Description

The base WWN associated with the SAS adapter is of invalid format. A correct WWN will be synthesized. The adapter will continue to function but this error indicates a manufacturing problem.

Corrective Action

The controller should be replaced with a correctly programmed one.

Syslog Message

The SAS WWN "%s" associated with adapter %s is bad. A valid one will be synthesized.

Parameters

WWN (STRING): The bad WWN.
adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.debug

Severity

INFORMATIONAL

Description

The SAS adapter driver debug event.

Corrective Action

(None).

Syslog Message

(None).

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.
debug_string (STRING): The debug statement that occurred.

sas.adapter.failed

Severity

ERROR

Description

The SAS adapter driver could not recover the adapter after resetting it multiple times. The adapter will be put offline.

Corrective Action

If the adapter is in use check cabling and if connected to disk shelves check the seating of IOM cards and disks. If the problem keeps occurring try replacing the adapter. Finally if the issue is still not resolved please

contact NetApp technical support for assistance in diagnosing a SAS issue.

Syslog Message

Failed to recover SAS %s after multiple resets. Offlining the adapter.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.firmware.download

Severity

INFORMATIONAL

Description

The firmware is being updated on the SAS adapter.

Corrective Action

(None).

Syslog Message

Updating firmware on SAS adapter %s from version %s to version %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.
oldFirmwareVersion (STRING): The version of the firmware currently on the adapter.
newFirmwareVersion (STRING): The version of the firmware being downloaded to the adapter.

sas.adapter.firmware.fault

Severity

NOTICE

Description

A firmware fault was detected on the SAS adapter and it is being reset to recover.

Corrective Action

(None).

Syslog Message

Detected firmware fault 0x%x on SAS adapter %s.

Parameters

faultCode (INTHEX): The firmware fault code.
adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.firmware.update.failed

Severity

EMERGENCY

Description

The firmware on the SAS adapter was unable to be updated.

Corrective Action

The adapter should be replaced as soon as possible. The SAS adapter driver will attempt to continue using the adapter without updating the firmware image.

Syslog Message

Unable to update firmware on SAS adapter %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.not.ready

Severity

ERROR

Description

The SAS adapter did not become ready after being reset.

Corrective Action

The SAS adapter driver will automatically attempt to recover from this error. If the error keeps occurring the adapter may need to be replaced.

Syslog Message

SAS adapter %s did not become ready.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.offline

Severity

INFORMATIONAL

Description

The SAS adapter is now offline.

Corrective Action

(None).

Syslog Message

SAS adapter %s is now offline.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.offlining

Severity

INFORMATIONAL

Description

The SAS adapter is going offline after all outstanding I/O requests have finished.

Corrective Action

(None).

Syslog Message

Offlining SAS adapter %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.online

Severity

INFORMATIONAL

Description

The SAS adapter is now online.

Corrective Action

(None).

Syslog Message

SAS adapter %s is now online.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.online.failed

Severity

ERROR

Description

The SAS adapter failed to come online.

Corrective Action

If the adapter is in use check cabling and if connected to disk shelves check the seating of IOM cards.

Syslog Message

SAS adapter %s failed to come online.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.onlining

Severity

INFORMATIONAL

Description

The SAS adapter is in the process of going online.

Corrective Action

(None).

Syslog Message

Onlining SAS adapter %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.unexpected.status

Severity

NOTICE

Description

The SAS adapter returned an unexpected status and will be reset to recover.

Corrective Action

(None).

Syslog Message

Unexpected status 0x%x received from SAS adapter %s.

Parameters

status (INTHEX): The status returned from the adapter.
adapterName (STRING): The name of the associated SAS host bus adapter.

sas.adapter.wwn.update.fail

Severity

ERROR

Description

This message occurs when the WWN, a unique world wide name that identifies the adapter, fails to update. This message only applies to internal lab systems.

Corrective Action

Contact your administrator.

Syslog Message

SAS adapter "%s" fails to update WWN "%s".

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.
WWN (STRING): WWN of the associated SAS host bus adapter.

sas.adapter.wwn.updated

Severity

NOTICE

Description

This message occurs when an SAS host bus adapter's worldwide name (WWN) is updated successfully. The WWN is a unique name that identifies the serial-attached SCSI (SAS) host bus adapter.

Corrective Action

(None).

Syslog Message

SAS adapter "%s" WWN updated from "%s" to "%s"

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.
OldWWN (STRING): Old WWN of the associated SAS host bus adapter.
WWN (STRING): New WWN of the associated SAS host bus adapter.

sas.cable events

sas.cable.degraded

Severity

ERROR

Description

This message occurs when the cable attached to SAS (Serial Attached SCSI) adapter port is functioning in a degraded mode.

Corrective Action

This condition implies one or more of the lanes in a 4-wide cable is fuctioning at a less-than-optimal speed, or is not functioning and has been disabled. The port will continue functioning but in a degraded, lower-performing mode. The cable should be replaced at some point in the future.

Syslog Message

Cable attached to SAS port "%s" is functioning in a degraded mode.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.cable.linkratelow

Severity

NOTICE

Description

This message occurs when the expander or cable attached to the SAS (serial-attached SCSI) host bus adapter port is functioning at a speed lower than its specification. This could happen because the HBA is connected to an IOM that supports a lower speed, or because of a speed degradation due to a faulty component, or because of a lower common shelf stack speed.

Corrective Action

(None).

Syslog Message

Expander or cable attached to SAS port %s is operating at %s, which is lower than expected.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.
currentSpeed (STRING): Current link rate for SAS host bus adapter, cable, and IOM expander.

sas.cable.unqualified

Severity

EMERGENCY

Description

This message occurs when a Serial Attached SCSI (SAS) cable attached to a controller port has not been qualified by NetApp. Unqualified cables might exhibit unpredictable behavior or experience higher error rates than qualified cables.

Corrective Action

Replace the cable with one qualified by NetApp

Syslog Message

Cable attached to SAS port %s has not been qualified by NetApp

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter port.

sas.config events

sas.config.bad

Severity

ERROR

Description

This message occurs when the SAS (Serial Attached SCSI) adapter is connected to a misconfigured SAS domain. Most likely a shelf in-port is attached to another in-port, or a shelf out-port is attached to another out-port. The SAS domain is effectively inoperative and attached SAS adapters will be taken offline. When the misconfiguration is corrected, the affected adapters can be brought back online.

Corrective Action

Correct the inter-shelf cabling configuration as defined in the applicable hardware documentation, and then bring the affected adapters back online.

Syslog Message

Adapter "%s" is connected to misconfigured SAS domain and being taken offline.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.config.badtransition

Severity

ERROR

Description

This message occurs when a SAS (Serial Attached SCSI) adapter is connected to a misconfigured SAS domain. A shelf with a 12 Gigabit-per-second (12 Gb/s) data rate might have been attached to a 3 or 6 Gb/s homogeneous stack or vice-versa. An external homogeneous stack does not allow for any transitions between 12 Gb/s and other data rates. The only exception is when an adapter is attached to an embedded internal shelf. A single transition between an internal shelf and the first external shelf attached to it is allowed. The message will appear the first time a transition is detected on a reboot or storage discovery operation.

Corrective Action

Correct the inter-shelf cabling configuration as defined in the applicable hardware documentation. Ensure that the shelf stack is homogeneous. 3 Gb/s and 6 Gb/s shelves are considered homogeneous.

Syslog Message

Unsupported speed transition by expander WWN: %s at level %d in SAS stack on adapter port %s.

Parameters

expanderWWN (STRING): WWN of the expander that caused the illegal transition.
expanderLevel (INT): Level of the expander in the stack causing the transition. It is the physical depth of the shelf in the SAS stack where the error occurs, counting outwards from the adapter port.
adapterName (STRING): Name of the associated SAS host bus adapter port.

sas.config.invalid

Severity

ERROR

Description

This message occurs when the SAS (Serial Attached SCSI) adapter is connected to a SAS domain that contains more than the supported number of disk shelves orenclosures. The SAS domain is functional, but some disk shelves/enclosures might not be visible to the system.

Corrective Action

Remove disk shelves or enclosures attached to the applicable SAS adapter in question, until the supported limit is reached. (4 for FAS2040 and FAS2050 systems, 10 for all other systems)

Syslog Message

Adapter "%s" is connected to more than the supported number of disk shelves or enclosures.

Parameters

adapterName (STRING): The name of the associated SAS adapter.

sas.config.mixed.detected

Severity

ERROR

Description

This message occurs when a SAS (Serial Attached SCSI) disk shelf contains a mixture of SAS drives, SATA drives or Bridged SAS drives. Mixing drive types within a disk shelf is not supported.

Corrective Action

Ensure that each SAS disk shelf is populated with drives of only one type.

Syslog Message

SAS shelf "%s" attached to adapter "%s" contains a mixture of drive types. Mixed configurations are not supported.

Parameters

shelfID (STRING): ID or serial number of the disk shelf where a mixture of drive types was detected.
adapterName (STRING): Name of the associated SAS host bus adapter.

sas.cpr events

sas.cpr.failed

Severity

EMERGENCY

Description

This message occurs when the CPR (Core PCIe Resilience) infrastructure determines that the SAS controller hardware cannot be recovered, and the associated SAS ports will be taken offline.

Corrective Action

Replace the SAS controller.

Syslog Message

CPR recovery failed on SAS HBA %s.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter (HBA).

sas.cpr.recoveryThreshold

Severity

EMERGENCY

Description

This message occurs when the SAS driver determines that CPR (Core PCIe Resilience) recovery of the

SAS controller hardware has exceeded thresholds, and the associated SAS ports will be taken offline.

Corrective Action

Replace the SAS controller.

Syslog Message

CPR recovery threshold has been exceeded on SAS HBA %s.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter (HBA).

sas.cpr.recoveryTimeout

Severity

ALERT

Description

This message occurs when the SAS driver determines that CPR (Core PCIe Resilience) recovery of the SAS controller hardware has timed out, and the associated SAS ports will be taken offline.

Corrective Action

Replace the SAS controller.

Syslog Message

CPR recovery timed out on SAS HBA %s.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter (HBA).

sas.device events

sas.device.bad.vmdisk.header

Severity

ERROR

Description

This message occurs when a disk's vmdisk header is bad. The disk is unusable by the system.

Corrective Action

Remove the disk from the system and either write a new vmdisk header to the disk or zero the disk.

Syslog Message

SAS adapter %s reports the device at port identifier %d has an invalid vmdisk header: %s.

Parameters

adapterName (STRING): Name of the associated SAS host bus adapter.
devicePortId (INT): Identifier of the SAS port device.
errorString (STRING): Identifies what is wrong with the vmdisk header.

sas.device.invalid.wwn

Severity

ERROR

Description

The SAS device responded with an invalid World-Wide Name.

Corrective Action

Power-cycling the device may allow it to recover from this problem.

Syslog Message

SAS adapter %s reports the device at port identifier 0x%x has an invalid World-Wide Name.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.
devicePortId (INTHEX): The SAS port identifier of the device.

sas.device.timeout

Severity

ERROR

Description

All outstanding commands to the specified device have not completed within the allotted time. As part of the standard error handling sequence managed by the Data ONTAP SAS driver, all commands to the device will be aborted and reissued.

Corrective Action

Device level timeouts are a common indication of a SAS link stability problem. In some cases the link is operating normally and the specified device is having trouble processing I/O requests in a timely manner. In such cases the specified device should be evaluated for possible replacement. Quite often the problem results from the partial failure of a component involved in the SAS transport. Common things to check include complete seating of drive carriers in enclosure bays, properly secured cable connections, IOM seating, and crimped or otherwise damaged cables.

Syslog Message

Adapter %s encountered a device timeout on %s device %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.
deviceType (STRING): The device type.
deviceName (STRING): The name of the SAS device.

sas.initialization events

sas.initialization.failed

Severity

ERROR

Description

The SAS adapter failed to initialize the link and appears to be unattached/disconnected.

Corrective Action

If the adapter is in use check cabling and if connected to disk shelves check the seating of IOM cards.

Syslog Message

Initialization failed on SAS adapter %s.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.

sas.link events

sas.link.error

Severity

ERROR

Description

The SAS adapter was unable to recover the link and is going offline.

Corrective Action

If the adapter is in use check cabling and if connected to disk shelves check the seating of IOM cards and disks. If this does not resolve the issue please contact NetApp technical support for assistance in diagnosing a SAS issue.

Syslog Message

Could not recover link on SAS adapter %s after %d seconds. Offlining the adapter.

Parameters

adapterName (STRING): The name of the associated SAS host bus adapter.
downTime (INT): The amount of time that the link was down.

sas.reset events

sas.reset.exp.discovery.resp

Severity

NOTICE

Description

This message occurs when SAS adapter driver resets the expander because of failure status of discovery response.

Corrective Action

If this message is infrequent, no action is needed. Otherwise, contact NetApp technical support.

Syslog Message

SAS adapter [%s]: Incorrect status in discovery response, resetting expander: %s

Parameters

adapterName (STRING): Name of the associated SAS adapter.
expanderName (STRING): Name of the expander being reset.

sas.reset.exp.open.dest

Severity

NOTICE

Description

This message occurs when SAS adapter driver resets the expander because open frames are recieving excessive no/bad destination status.

Corrective Action

If this message is infrequent, no action is needed. Otherwise, contact NetApp technical support.

Syslog Message

SAS adapter [%s]: Excessive open no/bad destination status, resetting expander: %s

Parameters

adapterName (STRING): Name of the associated SAS adapter.
expanderName (STRING): Name of the expander being reset.

sas.reset.exp.open.to

Severity

NOTICE

Description

This message occurs when SAS adapter driver resets the expander because of excessive open timeouts.

Corrective Action

If this message is infrequent, no action is needed. Otherwise, contact NetApp technical support.

Syslog Message

SAS adapter [%s]: Excessive open timeouts occured, resetting expander: %s

Parameters

adapterName (STRING): Name of the associated SAS adapter.
expanderName (STRING): Name of the expander being reset.

sas.reset.exp.smp

Severity

NOTICE

Description

This message occurs when SAS adapter driver resets the expander because of excessive SMP failures.

Corrective Action

If this message is infrequent, no action is needed. Otherwise, contact NetApp technical support.

Syslog Message

SAS adapter [%s]: Excessive SMP failures occured, resetting expander: %s

Parameters

adapterName (STRING): Name of the associated SAS adapter.
expanderName (STRING): Name of the expander being reset.

sas.shelf events

sas.shelf.conflict

Severity

ERROR

Description

This message occurs when the system detects that two or more SAS (serial attached SCSI) disk shelves have the same shelf ID. The SAS domain is functional, but references to disk shelves will be based on disk shelf serial numbers, not disk shelf IDs.

Corrective Action

Reassign disk shelf IDs so that no conflict exists.

Syslog Message

At least two SAS disk shelves have the same disk shelf ID.

Parameters

(None).

sas.unsupported events

sas.unsupported.port

Severity

ALERT

Description

This message occurs when ONTAP detects that a cable is attached to an I/O module port that is permanently disabled and does not support attachment.

Corrective Action

Remove the cable from the unsupported port on the I/O module.

Syslog Message

Port 0b2 on shelf ID %lld.%s, cable detected on unsupported port.

Parameters

shelfID (LONGINT): Shelf ID of the shelf reporting the error.
element (STRING): I/O module designator (A or B).

sasmon events

sasmon.adapter events

sasmon.adapter.phy.disable

Severity

ERROR

Description

This message occurs when a Serial Attached SCSI (SAS) transceiver (phy) attached to a SAS host bus adapter (HBA) is disabled due to one of the following reasons: exceeded loss of double word synchronization error threshold; exceeded running disparity error threshold; exceeded invalid double word error threshold; exceeded phy reset problem threshold; exceeded broadcast change threshold.

Corrective Action

If the HBA is in use, check the cabling. If it is connected to the disk shelves, check the seating of the IOM (I/O module) cards. If that does not fix the problem, contact NetApp technical support.

Syslog Message

Phy %d of HBA %s will be disabled due to %s errors.

Parameters

phyNum (INT): Number of the phy being disabled.
adapterName (STRING): Name of the associated SAS HBA.
errorType (STRING): Type of error based on which the phy is being disabled.

sasmon.disable events

sasmon.disable.module

Severity

INFORMATIONAL

Description

This message occurs when the Data ONTAP® module responsible for monitoring Serial Attached SCSI (SAS) domain's transient errors is disabled due to the environment variable disable-sasmon? being set to "true".

Corrective Action

Set the environment variable disable-sasmon? to "false" to enable this monitor module.

Syslog Message

SAS domain is not monitoring transient errors.

Parameters

(None).

savecore events

savecore.completed events

savecore.completed

Severity

INFORMATIONAL

Description

A synchronous savecore operation has completed.

Corrective Action

(None).

Syslog Message

Savecore completed

Parameters

(None).

savecore.nospace events

savecore.nospace

Severity

ERROR

Description

Savecore has determined that the space available for storing the unsaved core is not sufficient.

Corrective Action

Delete old or unneeded files in the root filesystem. Check in "/etc/crash" ("/crash" on Netcaches) for unneeded cores. Make sure to delete any snapshots that include the deleted files.

Syslog Message

The available disk space (%u blocks) is not sufficient to save the core, which may need up to %d blocks.

Parameters

avail (INT): Number of blocks available for saving the core
needed (INT): Number of blocks needed for saving the core

savecore.readonly events

savecore.readonly

Severity

NOTICE

Description

An attempt to run the savecore command was made during a read-only boot. This is not permitted.

Corrective Action

(None).

Syslog Message

Core dumps not saved in last resort read-only mode

Parameters

(None).

savecore.waiting events

savecore.waiting

Severity

INFORMATIONAL

Description

Savecore is running synchronously, and the console will be unresponsive until it is complete. This happens when savecore is given the "-f" or "-w" argument, or when previous attempts to save the core asynchronously fail.

Corrective Action

(None).

Syslog Message

Pausing to wait for savecore admin to finish

Parameters

(None).

sblade events

sblade.duplicate events

sblade.duplicate.iscsi.addr

Severity

ALERT

Description

This message occurs when a duplicate IP address is detected on more than one iSCSI interface. Only one of the interfaces is sent as an iSCSI target portal.

Corrective Action

Delete all but one of the iSCSI interfaces which share an IP address.

Syslog Message

Vserver '%s' iSCSI interface '%s' has the same IP address '%s' as another iSCSI interface. This interface will not be sent as an iSCSI target portal.

Parameters

vserver (STRING): Vserver containing the iSCSI interfaces.
interface (STRING): Interface that contains a duplicate IP address.
ipAddress (STRING): IP address that was duplicated.

scsi events

scsi.cmd events

scsi.cmd.aborted

Deprecated

This event has been removed as it does not provide any useful information for a customer.

Severity

ERROR

Description

The aborted event is issued if an I/O request is aborted by a class driver.

Corrective Action

(None).

Syslog Message

%s device %s: Command aborted: cdb %s (%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command was aborted.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ(10) or a WRITE(10), the logical block address and the transfer length are included as well.
dTime (INT): The delta time from when the command was first issued.

scsi.cmd.abortedByHost

Severity

ERROR

Description

This message occurs when the host adapter aborts an I/O request, either because it was a victim or because of an HA timeout.

Corrective Action

This condition does not necessarily mean that the target device is problematic. High workloads can cause loop saturation, leading to device contention for the bus. Transport issues can also cause loop throughput to decrease, thereby causing I/Os to take longer than normal. Seen occasionally, no action is required; the system handles the condition automatically by retrying the I/O that was aborted. Seen in association with a persistent error condition, such as device resets or transport errors, it is likely the symptom of a loop stability problem.

Syslog Message

%s device %s: Command aborted by host adapter: HA status 0x%x: cdb %s. %s

Parameters

deviceType (STRING): Device type.

deviceName (STRING): Electrical path name of the device on which the command failed.

ha_status (INTHEX): Value returned by the host adapter driver describing the completion status of the I/O request execution at the transport or physical link layer.

cdb (STRING): String containing the opcode byte of the CDB that was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.adapterFatal

Severity

ERROR

Description

The adapter fatal event is issued when the host adapter has detected a problem with either the buffer list or has exceeded the DMA size.

Corrective Action

(None).

Syslog Message

%s device %s: Adapter fatal error: HA status 0x%x: cdb %s.

Parameters

deviceType (STRING): The device type.

deviceName (STRING): The electrical path name of the device on which the command failed.

haStatus (INTHEX): The value of the HA status field for the failed command.

cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

scsi.cmd.adapterHardwareError

Severity

ERROR

Description

The adapter hardware error is issued when the host adapter has detected a loop is down, the scsi bus transport had an error or a problem with the adapter hardware itself.

Corrective Action

Evaluate for partial component failure the following loop hardware involved in the Fibre Channel transport: cables, transceivers, and I/O modules (LRC, ESH/ESH2, AT-FC, AT-FC2, and AT-FCX). If this error occurs in conjunction with transport errors on the same loop, ensure that all drive carriers are seated firmly in their enclosure bays, and verify that all cables are properly connected and undamaged. Also check the backplane connectors—if they are bent or broken, you must replace them. If the error persists for a specific device or I/O module from multiple adapters, you should replace that hardware module.

Syslog Message

%s device %s: Adapter detected hardware error: HA status 0x%x: cdb %s.

Parameters

deviceType (STRING): The device type.

deviceName (STRING): The electrical path name of the device on which the command failed.

haStatus (INTHEX): The value of the HA status field for the failed command.

cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

scsi.cmd.adapterHardwareErrorEMSOnly

Severity

ERROR

Description

This message occurs when the host adapter detects that a loop is down, the scsi bus transport has an error, or the adapter hardware itself has a problem, such as with a disk drive, cable, and so on.

Corrective Action

Evaluate for partial component failure the following loop hardware involved in the Fibre Channel transport: cables, transceivers, and I/O modules (LRC, ESH/ESH2, AT-FC, AT-FC2, and AT-FCX). If this error occurs in conjunction with transport errors on the same loop, ensure that all drive carriers are seated firmly in their enclosure bays, and verify that all cables are properly connected and undamaged. Also check the backplane connectors—if they are bent or broken, you must replace them. If the error persists for a specific device or I/O module from multiple adapters, you should replace that hardware module.

Syslog Message

%s device %s: Adapter detected hardware error: HA status 0x%x: cdb %s. %s

Parameters

deviceType (STRING): The device type.

deviceName (STRING): Physical path name of the device on which the command failed. It is in the format "path_id. device_id", where "path_id := switch:port | adapter". For example, switch1:5:40 or 8b.40.

haStatus (INTHEX): Value of the HA status field for the failed command. For this error message, the value is 6.

cdb (STRING): String containing the opcode byte of the command descriptor block (CDB) that was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are also included. For example, a hardware error during READ is in the format "0x28:logical_block_address:transfer_length".

disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.adapterResources

Severity

ERROR

Description

The adapter resource event is issued when the host adapter has run out of resources.

Corrective Action

(None).

%s device %s: Adapter detected resource issue: HA status 0x%x: cdb %s.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
haStatus (INTHEX): The value of the HA status field for the failed command.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

scsi.cmd.checkCondition

Severity

ERROR

Description

This message occurs when a check condition is recieved from a device. A check condition is the mechanism whereby a target device reports an informational condition or error status to the requesting host. Either the condition that generated this event is an error that occurred during execution of the command and was not cleared by retrying the request or an informational condition reporting status of the present operation or media state.

Corrective Action

A target status of check condition normally indicates an error at the device during execution of the requested command. Such cases are often the result of an intermittent device hardware or firmware problem that is automatically handled by the Data ONTAP drivers through command retries. In cases of repeated events, the specified device should be evaluated for proper operation and possible repair or replacement. A check condition with a SenseKey of "no sense" indicates an informational condition that is automatically handled by the Data ONTAP driver associated with the target device. These are normally not reported as error events. However, on occasion an unexpected informational condition may be reported by a target device. These cases should not be interpreted as a failure of the target device.

Syslog Message

%s device %s: Check Condition: CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d). %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.checkCondition.ATATimeout

Severity

ERROR

Description

An ATATimeout error typically indicates a problem in communicating with a disk in an ATFCX-bridged shelf.

Corrective Action

An initial ATA I/O Timeout will result in a SOFT RESET being issued to the disk in question. Subsequent ATA I/O Timeouts will result in a HARD RESET being performed to the disk followed by a POWER CYCLE of the disk. When any of these errors are encountered, ATFCX shelflog information is also updated. Check shelflog dynamic and persistent log information for controller details on the event. Check environment shelf_stats output for additional error statistics from the disk in question. Check disk shm_stats and disk shm_stats ha.disk_id for SMART log information from the disk in question. Collating this information will help determine if this is an isolated disk problem or a controller related problem. If the environment shelf_stats are clean along with the shelflog entries, then the error is probably a misbehaving disk. If the problem continues, RMA of the disk is recommended. However, if shelf_stats are not clean and/or shelflog errors are present, RMA of the ATFCX module is recommended.

Syslog Message

%s device %s: Check Condition: ATA I/O Timeout CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.ATATimeout.Failure

Severity

ERROR

Description

An ATATimeout error typically indicates a problem in communicating with a disk in an ATFCX-bridged shelf. A Failure message indicates that error recovery was unable to recover access to the drive and hence it is being actively failed.

Corrective Action

An initial ATA I/O Timeout will result in a SOFT RESET being issued to the disk in question. Subsequent ATA I/O Timeouts will result in a HARD RESET being performed to the disk followed by a POWER CYCLE of the disk. When any of these errors are encountered, ATFCX shelflog information is also updated. Check

shelflog dynamic and persistent log information for controller details on the event. Check environment shelf_stats output for additional error statistics from the disk in question. Check disk shm_stats and disk shm_stats ha.disk_id for SMART log information from the disk in question. Collating this information will help determine if this is an isolated disk problem or a controller related problem. If the environment shelf_stats are clean along with the shelflog entries, then the error is probably a misbehaving disk. If the problem continues, RMA of the disk is recommended. However, if shelf_stats are not clean and/or shelflog errors are present, RMA of the ATFCX module is recommended.

Syslog Message

%s device %s: Check Condition: ATA I/O Timeout - Failure CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.ATATimeout.HardReset

Severity

ERROR

Description

An ATATimeout error typically indicates a problem in communicating with a disk in an ATFCX-bridged shelf. A Hard Reset will be performed to the drive to attempt to clear the problem.

Corrective Action

An initial ATA I/O Timeout will result in a SOFT RESET being issued to the disk in question. Subsequent ATA I/O Timeouts will result in a HARD RESET being performed to the disk followed by a POWER CYCLE of the disk. When any of these errors are encountered, ATFCX shelflog information is also updated. Check shelflog dynamic and persistent log information for controller details on the event. Check environment shelf_stats output for additional error statistics from the disk in question. Check disk shm_stats and disk shm_stats ha.disk_id for SMART log information from the disk in question. Collating this information will help determine if this is an isolated disk problem or a controller related problem. If the environment shelf_stats are clean along with the shelflog entries, then the error is probably a misbehaving disk. If the problem continues, RMA of the disk is recommended. However, if shelf_stats are not clean and/or shelflog errors are present, RMA of the ATFCX module is recommended.

Syslog Message

%s device %s: Check Condition: ATA I/O Timeout - Hard Reset CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.ATATimeout.InternalReset

Severity

ERROR

Description

An ATATimeout error typically indicates a problem in communicating with a disk in an ATFCX-bridged shelf. An internal reset (aka power cycle) will be performed to the drive to attempt to clear the problem.

Corrective Action

An initial ATA I/O Timeout will result in a SOFT RESET being issued to the disk in question. Subsequent ATA I/O Timeouts will result in a HARD RESET being performed to the disk followed by a POWER CYCLE of the disk. When any of these errors are encountered, ATFCX shelflog information is also updated. Check shelflog dynamic and persistent log information for controller details on the event. Check environment shelf_stats output for additional error statistics from the disk in question. Check disk shm_stats and disk shm_stats ha.disk_id for SMART log information from the disk in question. Collating this information will help determine if this is an isolated disk problem or a controller related problem. If the environment shelf_stats are clean along with the shelflog entries, then the error is probably a misbehaving disk. If the problem continues, RMA of the disk is recommended. However, if shelf_stats are not clean and/or shelflog errors are present, RMA of the ATFCX module is recommended.

Syslog Message

%s device %s: Check Condition: ATA I/O Timeout - Internal Reset CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.

DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.ATATimeout.SoftReset

Severity

ERROR

Description

An ATATimeout error typically indicates a problem in communicating with a disk in an ATFCX-bridged shelf. A Soft Reset will be performed to the drive to attempt to clear the problem.

Corrective Action

An initial ATA I/O Timeout will result in a SOFT RESET being issued to the disk in question. Subsequent ATA I/O Timeouts will result in a HARD RESET being performed to the disk followed by a POWER CYCLE of the disk. When any of these errors are encountered, ATFCX shelflog information is also updated. Check shelflog dynamic and persistent log information for controller details on the event. Check environment shelf_stats output for additional error statistics from the disk in question. Check disk shm_stats and disk shm_stats ha.disk_id for SMART log information from the disk in question. Collating this information will help determine if this is an isolated disk problem or a controller-related problem. If the environment shelf_stats are clean along with the shelflog entries, then the error is probably a misbehaving disk. If the problem continues, RMA of the disk is recommended. However, if shelf_stats are not clean and/or shelflog errors are present, RMA of the ATFCX module is recommended.

Syslog Message

%s device %s: Check Condition: ATA I/O Timeout - Soft Reset CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.SATA.DriveDown

Severity

ERROR

Description

An SATA.DriveDown error typically indicates a problem in communicating with a disk behind a SAS to SATA bridge. A power cycle will be performed on the drive to attempt to clear the problem.

Corrective Action

A SATA Drive Down condition should clear after a drive power cycle. If the problem persists, the drive will be failed at which point RMA of the disk is recommended.

Syslog Message

device %s: Check Condition: SATA Drive Down CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.checkCondition.SATA.Timeout

Severity

ERROR

Description

An SATA.Timeout error typically indicates a problem in communicating with a disk behind a SAS to SATA bridge. A hard reset will be performed on the drive to attempt to clear the problem.

Corrective Action

A SATA Timeout condition should clear after a drive reset. If the problem persists, the drive report a drive down condition at which point it will be power cycle.

Syslog Message

device %s: Check Condition: SATA Drive Timeout CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d).

Parameters

deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.
sSenseKey (STRING): A string containing a description of the sense key for the failed command.
sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.
iSenseKey (INTHEX): The integer value of the sense key for the failed command.
iASC (INTHEX): The integer value of the sense code for the failed command.
iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): The integer value of the fru for the failed command.
DTime (INT): Delta time from first issued to sense logged.

scsi.cmd.contingentAllegiance

Severity

ERROR

Description

This message occurs when an I/O request receives a check condition, but there is no sense data.

Corrective Action

If there are command check conditions with no associated sense data with the device specified in this event and there are no other devices on the same bus/loop experiencing similar problems, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Contingent allegiance: cdb %s. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command received the contingent allegiance condition.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.driveFailureError

Severity

ERROR

Description

The drive reports failure after startup. Some i/o operation has failed on it and it should be removed.

Corrective Action

(None).

Syslog Message

%s device %s has failed during operation. Device %s is now unusable as a data or parity disk. It should be removed.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The pathname to the device that has failed the operation.
slotName (STRING): The name of the slot in which the event occurred.

scsi.cmd.excessiveVictim

Severity

ERROR

Description

This message occurs when the Storage Area Network (SAN) target or fabric continually aborts I/O operations. An initial victim abort results in the retry of the I/O operation without logging any messages. Subsequent victim aborts result in the logging of messages and additional retries. These messages are logged if there are continual aborts from the fabric or the target.

Corrective Action

Check the fabric ports and the target ports for problems in any of the components, and if necessary, take corrective actions. Check the fabric and the target logs for any event that caused the fabric or the target to abort the I/O operations. If the problem persists, troubleshoot the fabric or target.

Syslog Message

device %s: excessive victim abort: delta time %d: retry CDB %s: victim retry count %d: retry count %d: timeout retry count %d: path retry count %d: adapter status 0x%0x: target status 0x%0x: sense data %s - %s (0x%x - 0x%x 0x%x). %s

Parameters

deviceName (STRING): Path name of the device on which the command failed.
DTime (INT): Time, in milliseconds, from when the command was first issued until this message was logged.
cdb (STRING): String containing the opcode byte of the Command Descriptor Block (CDB) that was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are also included.
victimRetryCount (INT): Number of retries due to I/O failure not related to this I/O operation.
retryCount (INT): Number of retries from the SCSI layer.
timeoutRetryCount (INT): Number of times the I/O opeartion was timed out and retried.
pathRetryCount (INT): Number of retries for the path.
adapterStatus (INTHEX): Host adapter status.
targetStatus (INTHEX): Target status.
sSenseKey (STRING): String containing a description of the sense key for the failed command.
sSenseCode (STRING): String containing a description of the sense code for the failed command. If no description is available, this is an empty string.
iSenseKey (INTHEX): Integer value of the sense key for the failed command.
iASC (INTHEX): Integer value of the sense code for the failed command.
iASCQ (INTHEX): Integer value of the sense code qualifier for the failed command.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.failDevice

Severity

ERROR

Description

The failed device event is issued when a device emits a vendor specific sense key.

Corrective Action

The failed device should be replaced immediately.

Syslog Message

- ALERT! ** %s device %s has failed! Replace device at once!

Parameters

> **deviceType** (STRING): The type of device which has failed.
> **deviceName** (STRING): The electrical path name of the device which failed.

scsi.cmd.floatTimeout

Severity

> NOTICE

Description

> This message occurs when an Azure page blob I/O operation fails due to a timeout. ONTAP retries the I/O command for a maximum of five retries, until the command succeeds or fails. Successive retries increase the timeout period.

Corrective Action

> (None).

Syslog Message

> "%s" device "%s": The page blob I/O operation timeout increased to "%d" seconds: HA status "0x%x": OSC Error "%d": retry count "%d": elapsed time "%d" milliseconds: cdb %s. %s

Parameters

> **deviceType** (STRING): Device type.
> **deviceName** (STRING): Electrical path name of the device on which the command failed.
> **basicTimeout** (INT): Basic timeout, in seconds, set for the I/O operation.
> **haStatus** (INTHEX): Value of the high-availability (HA) status field for the failed command.
> **oscError** (INT): Value of the Object Store Client (OSC) error for the failed command.
> **retryCount** (INT): Number of retries from the SCSI layer.
> **ETime** (INT): Time, in milliseconds, from when the command was first issued until this I/O operation failed.
> **cdb** (STRING): String containing the opcode byte of the Command Descriptor Block (CDB) that was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
> **diskInformation** (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.fw.download.failed.butReverted

Severity

> ERROR

Description

> This event indicates that the download process was unsuccessful and thus the original running firmware is, again, the current running version.

Corrective Action

> If this error continues to be encountered, replace the FC-AT module in the shelf.

Syslog Message

> Firmware download failed, but successfully reverted to the previous running version on %s%d

Parameters

> **shelfName** (STRING): The name of the shelf in which the firmware download status is being provided.
> **shelf_num** (INT): The value of the shelf number.

scsi.cmd.fw.download.failed.notRecoverable

Severity

> ERROR

Description

> This event indicates that the download process failed and the previous running version of the firmware was not recoverable.

Corrective Action

> Replace the FC-AT module in the shelf.

Syslog Message

> Firmware download was unsuccessful and the previous running shelf firmware was not recoverable on %s%d. Once the shelf is power cycled, the FC-AT module may not be operational.

Parameters

> **shelfName** (STRING): The name of the shelf in which the firmware download status is being provided.
> **shelf_num** (INT): The value of the shelf number.

scsi.cmd.fw.download.successful

Severity

> INFORMATIONAL

Description

> This event indicates that the firmware download process completed successfully.

Corrective Action

> (None).

Syslog Message

> Firmware download was successful on %s%d

Parameters

> **shelfName** (STRING): The name of the shelf in which the firmware download status is being provided.
> **shelf_num** (INT): The value of the shelf number.

scsi.cmd.fw.download.successful.onRetry

Severity

> NOTICE

Description

> This event indicates that the download process was successful after being retried.

Corrective Action

(None).

Syslog Message

Firmware download was successful after being retried on %s%d

Parameters

shelfName (STRING): The name of the shelf in which the firmware download status is being provided.
shelf_num (INT): The value of the shelf number.

scsi.cmd.noMorePaths

Severity

ERROR

Description

The no more paths event is issued when all paths to a device have been tried without success.

Corrective Action

(None).

Syslog Message

%s device %s: No more paths to device: cdb %s. All retries have failed.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

scsi.cmd.notReadyCondition

Severity

NOTICE

Description

This message occurs when an I/O request receives a check condition where the device reports that it is not ready to process the I/O request. The I/O request is delayed to wait for the device to become ready, and then it is tried again.

Corrective Action

If command not ready check conditions associated with the device specified in this event persist, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Device returns not yet ready: CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x)(%d). %s

Parameters

deviceType (STRING): The device type.

deviceName (STRING): The electrical path name of the device on which the command failed.

cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

sSenseKey (STRING): A string containing a description of the sense key for the failed command.

sSenseCode (STRING): A string containing a description of the sense code for the failed command. If no description is available, this is a null string.

iSenseKey (INTHEX): The integer value of the sense key for the failed command.

iASC (INTHEX): The integer value of the sense code for the failed command.

iASCQ (INTHEX): The integer value of the sense code qualifier for the failed command.

iFRU (INTHEX): The integer value of the fru for the failed command.

dTime (INT): The delta time from when the command was first issued.

disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.overrun

Severity

ERROR

Description

This message occurs when an I/O request receives an overrun error. Too much data was received. I/O will be retried.

Corrective Action

If there are command overruns associated with the device specified in this event and there are no other devices on the same bus/loop experiencing similar problems, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Received a data overrun: cdb %s. Too much data was received. Possible transmission error. I/O will be retried. %s

Parameters

deviceType (STRING): The device type.

deviceName (STRING): The electrical path name of the device on which the command failed.

cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.pastTimeToLive

Severity

ERROR

Description

This message occurs when an I/O request is not completed in the maximum time allowed. It is possible that the target device is attempting an error recovery operation that is impeding the progress of other I/O requests. Often these conditions are not permanent and can be cleared by retrying the request. However, the system must limit the maximum time it waits for a device to successfully complete a request. Similarly, the number of retries is also limited. If the number of retries is not exhausted before the maximum time

allowed is exceeded, this event is generated.

Corrective Action

If there are command timeouts associated with the device specified in this event and there are no other devices on the same bus/loop experiencing similar problems, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: request failed after try #%d: cdb %s. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
retryCount (INT): The number of times the command was retried before its timer expired.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.requestSenseFailed

Severity

ERROR

Description

The request sense failed event is issued when the HA can not the auto request sense for a command which has failed.

Corrective Action

(None).

Syslog Message

%s device %s: Request sense failed: out status 0x%x: cdb %s.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cmdStatus (INTHEX): The error flags which were set for the command which failed.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.

scsi.cmd.selectionTimeout

Severity

ERROR

Description

This message occurs when the host adapter returns either a selection time out error (SCSI) or an invalid target error (FC). In effect, the specified device failed to acknowledge a request.

Corrective Action

Either the targeted device failed to respond or the address of the targeted device is no longer valid. If an alternate path to the device exists, the I/O will be automatically retried on the alternate path. If seen in conjunction with other timeouts on the same bus/loop, there may be a problem with the bus/loop, not the specific device. If this event is not seen in conjunction with any other error recovery activity on the same bus/loop, the specified device should be evaluated for proper operation and possible replacement.

Syslog Message

%s device %s: Adapter/target error: HA status 0x%x: cdb %s. Targeted device did not respond to requested I/O. I/O will be retried. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
haStatus (INTHEX): The value of the HA status field for the failed command.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.senseDataDump

Severity

ERROR

Description

This message occurs when a device emits a vendor-specific sense key. The returned sense data is dumped to provide the vendor with enough information to track down the problem.

Corrective Action

Because the sense key is vendor-specific, the vendor of the device should be contacted for any corrective actions.

Syslog Message

class 0x%x segment 0x%x sense_key 0x%x info 0x%x 0x%x 0x%x 0x%x length 0x%x resv_1 0x%x sense_code 0x%x sense_code_qualifier 0x%x fru_failed 0x%x flags 0x%x field_pointer 0x%x. %s

Parameters

class (INTHEX): The response code byte of the request sense data.
segment (INTHEX): The segment number byte of the request sense data.
senseKey (INTHEX): The Sense key byte of the request sense data.
info0 (INTHEX): The most significant byte of the information field of the request sense data.
info1 (INTHEX): The second most significant byte of the information field of the request sense data.
info2 (INTHEX): The third most significant byte of the information field of the request sense data.
info3 (INTHEX): The least significant byte of the information field of the request sense data.
length (INTHEX): The additional sense length field of the request sense data.
resv_1 (INTHEX): The command specific information field of the request sense data.
senseCode (INTHEX): The additional sense code field of the request sense data.
senseCodeQualifier (INTHEX): The additional sense code qualifier field of the request sense data.
fruFailed (INTHEX): The field replaceable unit code field of the request sense data.
flags (INTHEX): The flags byte of the sense key specific field of the request sense data.

fieldPointer (INTHEX): The field pointer bytes of the sense key specific field of the request sense data.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.SFRPCrestartError

Severity

EMERGENCY

Description

This message occurs when an SFRPC I/O request failure is being retried and the request exceeds the maximum time allowed for the request ("Max Time to Live"). The system will restart to attempt recovery.

Corrective Action

No additional action is required.

Syslog Message

%s device %s: Transport error exceeded "Max Time to Live" limit during the execution of the command. The system will attempt to restart to clear the requests: HA status 0x%x: ffm_status: %s:%d CDB %s (%d). %s

Parameters

deviceType (STRING): Device type.
deviceName (STRING): Electrical path name of the device on which the command failed.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
ffm_statusName (STRING): Name of the status returned by the FFM services describing the completion status of the I/O request at the FFM layer.
ffm_status (INTHEX): Value returned by the FFM services describing the completion status of the I/O request at the FFM layer.
cdb (STRING): String containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a) command, the logical block address and the transfer length are also included.
dTime (INT): Delta time from when the command was first issued.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, serial number and slice ID.

scsi.cmd.SFRPCtransportError

Severity

ERROR

Description

This message occurs when an SFRPC I/O request encounters a transport error during command execution. Transport errors are typically the result of the SFRPC layer's inability to complete a request successfully.

Corrective Action

Transport errors are typically unexpected events. System software takes appropriate recovery actions by retrying the I/O. No additional action is required.

Syslog Message

%s device %s: Transport error during execution of command: HA status 0x%x: ffm_status: %s:%d CDB %s (%d). %s

Parameters

deviceType (STRING): Device type.
deviceName (STRING): Electrical path name of the device on which the command failed.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
ffm_statusName (STRING): Name of status returned by the FFM services describing the completion status of the I/O request at the FFM layer.
ffm_status (INTHEX): Value returned by the FFM services describing the completion status of the I/O reqeust at the FFM layer.
cdb (STRING): String containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (x02a) command, the logical block address and the transfer length are included as well.
dTime (INT): Delta time from when the command was first issued.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, serial number and slice ID.

scsi.cmd.slotfailureError

Severity

ERROR

Description

The slot failure error event is issued if an I/O request got (0x02, 0x04, 0x05) returned from the sense information.

Corrective Action

(None).

Syslog Message

%s device %s has detected a slot failure. Device %s is now inaccessible. Shelf must be replaced to resolve problem.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
slotName (STRING): The name of the slot in which the event occurred.

scsi.cmd.targetStatus

Severity

ERROR

Description

This message occurs when an I/O request receives a status that is neither a reservation conflict nor a check condition, and represents an error that can not be retried.

Corrective Action

If the command target status associated with the device specified in this event persists and/or the device is failed, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Target Status %s: cdb %s. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
targetStatus (STRING): A string containing the target status received from the command.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.transportError

Severity

ERROR

Description

This message occurs when an I/O request encounters a transport error during command execution. Transport errors are typically the result of an incomplete data transfer (e.g., device expected more data than was received from the host adapter, or the adapter expected more data than was received from the device), a data overrun meaning that more data was transferred than was expected, a physical link transmission (parity or CRC) error, or a bus protocol error (phase error or an unexpected bus state transition.)

Corrective Action

Transport errors are typically unexpected events. The exception is when drives are physically added or removed from the bus or drive enclosure. However, transport protocols do account for detection and recovery of transmission errors through CRC or Parity mechanisms. When such an error is reported to the adapter driver, the associated request is retried. For example, on a Fibre Channel link, an occasional transmission error is consistent with the expected Bit Error Rate specifications of the link. Output from the fcadmin link_stats command can be used to obtain error counts for CRC and transport errors. If they exceed observed values from normally operating loops, loop hardware should be evaluated for partial failure of a component involved in the Fibre Channel transport. Common things to check include complete seating of drive carriers in enclosure bays, properly secured cable connections, LRC/ESH seating, and crimped or otherwise damaged cables.

Syslog Message

%s device %s: Transport error during execution of command: HA status 0x%x: cdb %s.

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (x02a) command, the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.transportErrorEMSOnly

Severity

ERROR

Description

This message occurs when an I/O request encounters a transport error during command execution. Transport errors are typically unexpected events, unless you added or removed disk drives from the bus or drive enclosure. Unexpected transport errors are typically the result of the following conditions: An incomplete data transfer where the device expected more data from the host adapter than it received (or the adapter expected more data from the device than it received); A data overrun where more data than expected was transferred; A physical link transmission (parity or CRC [cyclic redundancy check]) error; Or a bus protocol error (phase error or unexpected bus state transition).

Corrective Action

Transport protocols do account for detection and recovery of transmission errors through CRC or parity mechanisms. When this error is reported to the adapter driver, the associated request is retried. For example, on a Fibre Channel link, an occasional transmission error is consistent with the expected Bit Error Rate specifications of the link. Therefore, use output from the "fcadmin link_stats" command to obtain error counts for CRC and transport errors. If the error counts exceed observed values from normally operating loops, evaluate for partial component failure the loop hardware involved in the Fibre Channel transport. Common things to check include complete seating of drive carriers in enclosure bays, properly secured cable connections, complete LRC/ESH module seating, and crimped or otherwise damaged cables.

Syslog Message

%s device %s: Transport error during execution of command: HA status 0x%x: cdb %s. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): Physical path name of the device on which the command failed. It is in the format "path_id.device_id", where "path_id := switch:port | adapter". For example, switch1:5:40 or 8b.40.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of the I/O request execution at the transport layer or physical link layer. For this error message, the value is 9.
cdb (STRING): String containing the opcode byte of the command descriptor block (CDB) that was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a) command, the logical block address and the transfer length are also included. For example, 0x28:logical_block_address:transfer_length.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.underrun

Severity

ERROR

Description

This message occurs when an I/O request receives an underrun error and has not specifically instructed the SCSI layer to ignore underrun errors.

Corrective Action

If there are command underruns associated with the device specified in this event and there are no other devices on the same bus/loop experiencing similar problems, the device should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Received a data underrun: cdb %s. Not all the data was received. Possible transmission error. I/O will be retried. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.cmd.unexpectedAdapterError

Severity

ERROR

Description

This message occurs when a hardware adapter returns an error that is unknown to the SCSI layer.

Corrective Action

The associated hardware adapter should be evaluated for proper operation and possible repair/replacement.

Syslog Message

%s device %s: Unexpected adapter error: HA status 0x%x: cdb %s. %s

Parameters

deviceType (STRING): The device type.
deviceName (STRING): The electrical path name of the device on which the command failed.
haStatus (INTHEX): The value of the HA status field for the failed command.
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (0x2a), the logical block address and the transfer length are included as well.
disk_information (STRING): Formatted information about the disk, including the disk's vendor, model, firmware revision, and serial number.

scsi.mcc events

scsi.mcc.adt.ioTransportError

Severity

ERROR

Description

Generated when an I/O request encounters an error because of an iSCSI Protocol Error, a end device error, or some stack internal error.

Corrective Action

Transport errors are typically unexpected events; the exception being when drives are physically added or removed from the bus or drive enclosure. However, transport protocols do account for detection and recovery of transmission errors through CRC or Parity mechanisms. When such an error is reported to the adapter driver, the associated request is retried. Common things to check include complete seating of drive carriers in enclosure bays, properly secured cable connections, LRC/ESH seating, and crimped or otherwise damaged cables.

Syslog Message

mcc_adt[%u] - Transport error during execution of command: HA status 0x%x: CAM transport status 0x%x : cdb %s.

Parameters

path_instance (INTHEX): Value returned by the host adapter driver describing path instance.
ha_status (INTHEX): Value returned by the host adapter driver describing completion status of I/O request execution at the transport or physical link layer.
cam_status (INTHEX): Value returned by the host adapter driver in the FreeBSD CAM transport layer
cdb (STRING): A string containing the opcode byte of the CDB which was sent to the device. If the opcode was for a READ (0x28) or a WRITE (x02a) command, the logical block address and the transfer length are included as well.

scsi.path events

scsi.path.excessiveErrors

Severity

ERROR

Description

This message occurs when excessive errors are encountered on this device within a short-enough time period to raise concern that there might be a faulty component between the storage initiator and device. You can use the option 'ra.path_switch.threshold' to control how sensitive Data ONTAP® is to device errors. Setting it to a higher value requires more errors to trigger this event.

Corrective Action

Device errors are a common indication of storage domain stability problems. In some cases, the interconnect is operating normally and the specified device is having trouble processing I/O requests in a timely manner. In such cases, evaluate the specified device for possible replacement. Quite often the problem results from the partial failure of a component involved in the storage transport. Common things to check include complete seating of drive carriers in enclosure bays, properly secured cable connections, shelf IOM seating, failing Fibre Channel switch components, failing FC SAS bridge components and crimped or otherwise damaged cables.

Syslog Message

Excessive errors encountered by adapter %s on %s device %s.

Parameters

adapterName (STRING): Name of the associated storage host bus adapter.
deviceType (STRING): Device type.
deviceName (STRING): Name of the storage device.

scsi.scan events

scsi.scan.bus.halted

Severity

NOTICE

Description

This message occurs when the creation of the SCSI transport (xpt) path fails.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

The path that is creating the xpt path has failed with status 0x%x. Bus scan halted.

Parameters

status (INTHEX): SCSI scan bus halt status.

scsi.scan.lun.halted

Severity

NOTICE

Description

This message occurs when the creation of the SCSI transport (xpt) path fails.

Corrective Action

Check whether the device is connected correctly.

Syslog Message

The path that is creating the xpt path has failed with status 0x%x. Bus scan halted.

Parameters

status (INTHEX): SCSI scan LUN halted status.

scsi.security events

scsi.security.authLockOut

Deprecated

This event is removed to disassociate from SCSI, with the advent of NVMe encrypting drives. See replacement message EMS_nse_authLockedOut.

Severity

ERROR

Description

This message occurs when a self-encrypting drive (SED) reports excessive sequential failed authentication attempts with an incorrect Authentication Key (AK). To prevent brute-force AK attacks, the SED will no

longer accept even the correct AK. Access and control of the SED are affected. BandMaster1 authority lockout affects protection controls on user data. The system cannot authenticate using the data AK. A device power-cycle will result in data loss on the drive. For other lockouts, some aspect of compliance with Federal Information Processing Standard (FIPS) PUB 140-2 is compromised. Erase Master lockout disables cryptographic sanitize and destroy.

Corrective Action

For BandMaster1 authority lockout, reset the AK to its default value and simultaneously erase user data using the "storage encryption disk sanitize" command or the (advanced privilege) "disk encrypt sanitize" command in node shell/maintenance mode. Power-cycle clears Physical Ownership lockout in some SEDs. For other lockouts, reset the SED to its as-manufactured state and erase user data using the "storage encryption disk revert-to-original-state" command or the (advanced privilege) "disk encrypt revert_original" command in node shell/maintenance mode with the PSID value from the device label. If the PSID is not available, replace the drive. After clearing lockout, make the drive a spare by using the "storage disk assign" command and (advanced privilege) "storage disk unfail [-spare]" command as needed. To prevent lockouts, ensure that all cluster NSE nodes have all SED AKs. Display SED key IDs by using the "storage encryption disk show [-fips]" command. Verify them against those retrieved from the AK storage method: KMIP servers: Use the "security key-manager restore" command. Onboard key management: Use the "security key-manager key show" command.

Syslog Message

Lockout on Storage Encryption device %s; security provider: %s, authority: %s, during operation "%s".

Parameters

deviceName (STRING): Name of the device.
securityProvider (STRING): Name of the security provider.
authority (STRING): Name of the authority.
operation (STRING): Description of the operation that attempted authentication.

scsi.sim events

scsi.sim.checkCondition

Severity

ERROR

Description

A Check Condition is the mechanism whereby a target device reports an informational condition or error status to the requesting host. Either the condition that generated this event is an error that occurred during execution of the command and was not cleared by retrying the request or an informational condition reporting status of the present operation or media state.

Corrective Action

A target status of Check Condition normally indicates an error at the device during execution of the requested command. Such cases are often the result of an intermittent device hardware or firmware problem that is automatically handled by the Data ONTAP drivers through command retries. In cases of repeated events, the specified device should be evaluated for proper operation and possible repair or replacement. A Check Condition with a SenseKey of "no sense" indicates an informational condition that is automatically handled by the Data ONTAP driver associated with the target device. These are normally not reported as error events. However, on occasion an unexpected informational condition may be reported by a target device. These cases should not be interpreted as a failure of the target device.

Syslog Message

%s device %s: Check Condition: CDB %s: Sense Data %s - %s (0x%x - 0x%x 0x%x 0x%x) Retry: %d/%d (%d).

Parameters

deviceType (STRING): Device type.

deviceName (STRING): Electrical path name of the device on which the command failed.

cdb (STRING): String containing the opcode byte of the Command block which encountered the error. For opcodes of READ (0x28) or WRITE (0x2a), the logical block address and the transfer length are also included.

sSenseKey (STRING): String containing a description of the sense key for the failed command.

sSenseCode (STRING): String containing a description of the sense code for the failed command. If no description is available, this is a null string.

iSenseKey (INTHEX): Integer value of the sense key for the failed command.

iASC (INTHEX): Integer value of the sense code for the failed command.

iASCQ (INTHEX): Integer value of the sense code qualifier for the failed command.

iFRU (INTHEX): Integer value of the fru for the failed command.

retryCount (INT): Number of times the command was retried

freeRetryCount (INT): Number of free retries the command was given before it was successful.

DTime (INT): Delta time from first issued to sense logged.

scsiblade events

scsiblade.autoheal events

scsiblade.autoheal.disabled

Severity

NOTICE

Description

This message occurs when the node loses connectivity with the majority of the cluster and autoheal has been explicitly disabled by the user. When this occurs, both FCP and iSCSI traffic are disabled on this node and require manual intervention to come back into service.

Corrective Action

(None).

Syslog Message

This node lost connectivity with the majority of the cluster. The option "san.autoheal.enable" is "off", so the cluster's SAN configuration will not automatically recover. Both FCP and iSCSI traffic are disabled on this node.

Parameters

(None).

scsiblade.cache events

scsiblade.cache.commit.fail

Severity

ALERT

Description

This message occurs when the SAN cache encounters an error that might cause configuration inconsistencies within the cluster. SAN data traffic might be interrupted until the problem is addressed.

Corrective Action

Reload the scsi-blade by using the (privilege: diagnostic) "debug san vserver reload" command for all Vservers on this node, or perform a planned takeover/giveback of this node.

Syslog Message

The SAN cache might be inconsistent. SAN data traffic might be interrupted.

Parameters

(None).

scsiblade.disabled events

scsiblade.disabled

Severity

NOTICE

Description

This message occurs when the local node is made ineligible. When this occurs, both FCP and iSCSI traffic are disabled on the local node.

Corrective Action

Modify the node's eligibility by using the (privilege: advanced) "cluster modify -eligibility true" command.

Syslog Message

The local node is ineligible. FCP and iSCSI access is disabled.

Parameters

(None).

scsiblade.dpa events

scsiblade.dpa.disabled

Severity

NOTICE

Description

This message occurs when the node loses connectivity with the majority of the cluster and the Data Plane Availability feature has been explicitly disabled by the user. When this occurs, both FCP and iSCSI traffic are disabled on this node until connectivity is restored.

Corrective Action

(None).

Syslog Message

This node lost connectivity with the majority of the cluster. The option "san.dpa.enable" is "off", so both FCP and iSCSI traffic are disabled on this node until connectivity is restored.

Parameters

(None).

scsiblade.ha events

scsiblade.ha.partner.dblade.id.retrive.error

Severity

ERROR

Description

Unable to retrive HA Partner DBlade ID.

Corrective Action

No corrective action

Syslog Message

Unable to retrive HA Partner DBlade ID.

Parameters

(None).

scsiblade.illegal events

scsiblade.illegal.xfer.len

Severity

ERROR

Description

This message occurs when an error is returned for a SCSI command that exceeds the LUN's maximum supported transfer length of 1MB.

Corrective Action

This error is due to a problem on the host. Use one of the following recovery actions to address the problem. 1) Rescan the LUNs or reboot the host to enable discovery of the supported maximum transfer length. 2) Disable the host application that is causing the problem. 3) Report the bug to the host operating system or application provider.

Syslog Message

Returned Illegal Request response to host type %s for command opcode 0x%x with a transfer length of %lld bytes on LUN %s.

Parameters

host_os_type (STRING): Host OS type.
opcode (INT): SCSI opcode.
length (LONGINT): Request transfer length.
LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.import events

scsiblade.import.attr.mod

Severity

ERROR

Description

This message occurs when attributes of a SAN LUN under LUN import are modified. This is not a supported operation and the LUN import session needs to be deleted and re-created.

Corrective Action

Run the "lun import delete" and "lun import create" commands to re-create the import session.

Syslog Message

Attributes of the following SAN LUN under LUN import are modified: Vserver %s, volume with MSID %llu, LUN serial number %s, LUN UUID %s. This is not a supported operation and the LUN import session needs to be deleted and re-created.

Parameters

vserver (STRING): Name or UUID of the Vserver.
volumeMSID (LONGINT): MSID of the container volume.
LUN_Serial (STRING): LUN serial number.
LUN_UUID (STRING): LUN UUID.

scsiblade.import.dblade.fail

Severity

ERROR

Description

This message occurs when a SAN LUN import failover event fails for a Vserver during takeover or giveback. Some LUN import sessions configured on the Vserver will be affected. The failed LUN import sessions might not progress until a planned takeover or giveback is performed.

Corrective Action

Perform a planned takeover or giveback.

Syslog Message

SAN LUN import failover event failed for Vserver %s. Some LUN import sessions configured on the Vserver will be affected and will be in a failed state.

Parameters

vserver (STRING): Name or UUID of the Vserver.

scsiblade.import.lun.offline

Severity

ERROR

Description

This message occurs when a LUN currently being imported is brought offline by Data ONTAP ® because of an I/O failure on the foreign disk. The issue is either that data cannot be read from or written to the source (foreign LUN), or that there is an internal error.

Corrective Action

Verify the connectivity to the foreign disk. After resolving any connectivity issues, delete the LUN import and create it again.

Syslog Message

LUN %s in volume with MSID %llu on Vserver %s has been brought offline due to an I/O failure on the underlying foreign disk with serial number %s.

Parameters

lunSerial (STRING): Serial number of the LUN.
volumeMSID (LONGINT): MSID of the volume.

vserver (STRING): Name or UUID of the Vserver.
foreignDiskSlNo (STRING): Serial number of the foreign disk.

scsiblade.import.volume.fail

Severity

ERROR

Description

This message occurs when a SAN LUN import failover event fails for a volume during takeover or giveback. All LUN import sessions configured in this volume are affected. The failed LUN import sessions might not progress until a planned takeover or giveback is performed.

Corrective Action

Perform a planned takeover or giveback.

Syslog Message

SAN LUN import failover event failed for Vserver %s, volume with MSID %llu. Some LUN import sessions configured on the volume will be affected and will be in a failed state.

Parameters

vserver (STRING): Name of the Vserver.
volumeMSID (LONGINT): MSID of the volume.

scsiblade.init events

scsiblade.init.abort

Severity

ALERT

Description

This message occurs when the specified Vserver initialization was skipped due to a user-initiated abort. Giveback was allowed to succeed—in a degraded state—to allow further recovery. LUNs in the Vserver might not be accessible or might not be accessible on all paths.

Corrective Action

Resolve the previously identified fault for which the abort was issued, and then restart SAN initialization on the node by using the "debug san node restart-vserver-initialization" command.

Syslog Message

Vserver "%s" was not initialized due to a user-initiated abort request. SAN service for this Vserver might be degraded or unavailable on this node.

Parameters

vserver (STRING): Name of the Vserver.

scsiblade.init.failure

Severity

ALERT

Description

This message occurs when there is a problem initializing the SAN Kernel Agent for one or more Vservers. LUNs in the affected Vserver(s) might not be accessible or might not be accessible via all paths.

Corrective Action

Perform a planned takeover of the node with the failure followed by a giveback.

Syslog Message

There was a problem initializing the SAN Kernel Agent for one or more Vservers. Vserver: %s. Reason: %s.

Parameters

vserver (STRING): Name of the Vserver for which the SAN Kernel Agent failed to initialize.
error (STRING): Error encountered while initializing the SAN Kernel Agent for the Vserver.

scsiblade.invalid events

scsiblade.invalid.xfer.len

Severity

NOTICE

Description

This message occurs when a SCSI command requests a transfer length greater than the LUN's maximum supported transfer length of 1MB. ONTAP® software completes the command normally but the host has sent this request in violation of the SCSI protocol.

Corrective Action

Rescan the LUNs or reboot the host to enable discovery of the supported maximum transfer length for the LUN.

Syslog Message

Host type %s sent command opcode 0x%x with a transfer length of %lld bytes, which exceeds the maximum of 1MB on LUN %s.

Parameters

host_os_type (STRING): Host OS type.
opcode (INT): SCSI opcode.
length (LONGINT): Request transfer length.
LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.isolated events

scsiblade.isolated

Severity

ERROR

Description

This message occurs when the node loses connectivity with the majority of the cluster. When this occurs, both FCP and iSCSI traffic are isolated to local access only. Remote cluster traffic is impacted. After connectivity is restored, the node automatically recovers and allows remote FCP and iSCSI access.

Corrective Action

Correct the issue that caused the node to lose connectivity with the majority of the cluster. After the issue is corrected, remote service is restored.

Syslog Message

This node lost connectivity with the majority of the cluster. When this occurs, both FCP and iSCSI traffic are isolated to local access only. Remote cluster traffic will be impacted until connectivity is restored.

Parameters

(None).

scsiblade.kernel events

scsiblade.kernel.volume.limbo.group

Severity

EMERGENCY

Description

This message occurs when the kernel cluster group for the specified volume is in an indeterminate state.

Corrective Action

Contact NetApp technical support. For further information about correcting the problem, see the knowledgebase article 2017368.

Syslog Message

The kernel cluster group for volume MSID 0x%llx of Vserver %s is in an indeterminate state. This will impact SAN management and configuration. Additionally, LUNs might not be accessible on this volume from this node.

Parameters

volume (LONGINTHEX): Volume identifier.
vserver (STRING): UUID of the Vserver.

scsiblade.kernel.vserver.limbo.group

Severity

EMERGENCY

Description

This message occurs when the kernel cluster group for the specified Vserver is in an indeterminate state.

Corrective Action

Contact NetApp technical support. For further information about correcting the problem, see the Knowledgebase article 2017367.

The kernel cluster group for Vserver %s is in an indeterminate state. This will impact SAN management and configuration. Additionally, LUNs might not be accessible on this Vserver from this node.

Parameters

vserver (STRING): UUID of the Vserver.

scsiblade.lif events

scsiblade.lif.init.fail

Severity

ERROR

Description

This message occurs when the SAN LIF fails to be configured during Vserver initialization. The affected SAN LIF cannot serve data until the issue is resolved.

Corrective Action

Delete and re-create the network interface by using the "network interface delete -vserver [vserver] -lif [lif-name]" command, and then the "network interface create -vserver [vserver] -lif [lif-name]" command. You can find the configuration information required to create the network interface (data-protocol, home-node, port, etc.) by using the "network interface show -vserver [vserver] -lif [lif-name]" command. If the problem persists, contact NetApp technical support for further assistance.

Syslog Message

Vserver %s network interface %s type %s could not be initialized (error %u:%u).

Parameters

vserver (STRING): Name of the Vserver.
lif (STRING): Name of the network interface (LIF).
liftype (STRING): Type of network interface (LIF).
errortype (INT): Error type.
error (INT): Error.

scsiblade.lif.init.timeout

Severity

NOTICE

Description

This message occurs when Vserver initialization finishes, and some volumes are partially initialized. This can happen when nodes are out of quorum. When the initialization timer expires, LIFs in the Vserver are brought online regardless of whether volume initialization is complete.

Corrective Action

(None).

Syslog Message

Delayed LIF initialization timer expired for Vserver "%s".

Parameters
   vserver (STRING): Name of the Vserver.

scsiblade.lu events

scsiblade.lu.gir.end

Severity
   INFORMATIONAL

Description
   This message occurs when this node completes a group internal rebuild for an LU.

Corrective Action
   (None).

Syslog Message
   Group internal rebuild complete for LUN %s on this node.

Parameters
   LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.lu.gir.hung

Severity
   NOTICE

Description
   This message occurs when group internal rebuild for an LUN hangs on this node

Corrective Action
   (None).

Syslog Message
   Group internal rebuild hung for LUN %s on this node.

Parameters
   LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.lu.gir.start

Severity
   INFORMATIONAL

Description
   This message occurs when the distributed LUN group commences an internal rebuild.

Corrective Action
   (None).

Group internal rebuild has started for LUN %s on this node.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.lu.incons.memb

Severity

ALERT

Description

This message occurs when the SCSI target identifies a node that has an incorrect view of the group membership for a LUN. The LUN will be unavailable on this node and will have sporadic availability on other nodes.

Corrective Action

To recover from this condition in HA pair configurations, take over the node with the problem by using the "storage failover takeover" command, and then give back the node by using the "storage failover giveback" command. To recover from this condition in non-HA configurations, reboot the nodes having this condition by using the "system node reboot" command.

Syslog Message

LUN %s on node %s has an incorrect group membership list. Perform a takeover followed by a giveback of this faulty node.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
nodeName (STRING): Name of the node that has an incorrect view of the group.

scsiblade.lu.int.rst.hung

Severity

ALERT

Description

This message occurs when the SCSI target cannot complete an internal reset of a LUN. This LUN is unavailable until the nodes that could not complete the internal reset are taken over and given back.

Corrective Action

To recover from this condition in HA pair configurations, take over the node with the problem by using the "storage failover takeover" command, and then give back the node by using the "storage failover giveback" command. To recover from this condition in non-HA configurations, reboot the nodes having this condition by using the "system node reboot" command.

Syslog Message

Access to LUN %s is restricted because an internal reset of the LUN was not completed in %d milliseconds. Perform a takeover followed by a giveback for the following nodes: %s.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
lu_int_rst_hung_time (INT): Duration of the internal reset attempt in milliseconds.

nodeName (STRING): Names of the nodes on which the internal reset of the LUN was not completed.

scsiblade.lu.int.rst.pending

Severity

NOTICE

Description

This message occurs when the SCSI target cannot complete an internal reset of a LUN in 90 seconds. Internal reset is still pending, waiting for internal reset completion within 10 minutes.

Corrective Action

(None).

Syslog Message

Access to LUN %s is restricted because an internal reset of the LUN was not completed in %d milliseconds. Internal reset of the LUN is still pending.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
lu_int_rst_pending_time (INT): Duration of the internal reset attempt in milliseconds.
nodeName (STRING): Names of the nodes on which the internal reset of the LUN was not completed.

scsiblade.lu.resync.end

Severity

NOTICE

Description

This message occurs when the SCSI target internal resynchronization of a LUN is complete.

Corrective Action

(None).

Syslog Message

Resynchronization of LUN %s on this node was completed successfully.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.lu.resync.start

Severity

NOTICE

Description

This message occurs when the SCSI target internal resynchronization of a LUN starts. The LUN is not accessible on LIFs on this node during the resynchronization, but the LUN will recover automatically.

Corrective Action

(None).

Syslog Message

Resynchronization of LUN %s has started. The LUN is not accessible on LIFs on this node until resynchronization is complete and the LUN recovers automatically.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.lu.resync.timeout

Severity

ALERT

Description

This message occurs when the SCSI target internal resynchronization of a LUN times out. This LUN is not accessible on this node.

Corrective Action

To recover from this condition in HA pair configurations, take over the node with the problem by using the "storage failover takeover" command, and then give back the node by using the "storage failover giveback" command. To recover from this condition in non-HA configurations, reboot the nodes having this condition by using the "system node reboot" command.

Syslog Message

Resynchronization of LUN %s on node %s was not completed in %d seconds. LUN is not accessible on LIFs on this node. Perform a takeover followed by a giveback of this node.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
nodeName (STRING): Name of the node where resynchronization of the LUN was not completed.
resync_time_out_time (INT): Duration of the resynchronization attempt in seconds.

scsiblade.lu.rtpg.lifs

Severity

ERROR

Description

This message occurs when the SCSI Target processes the RTPG command and the number of LIFs per Vserver exceeds 700.

Corrective Action

Reduce the number of LIFS per Vserver to under 700.

Syslog Message

The Vserver hosting LUN %s has %d LIFs. RTPG command expects the number of LIFs per Vserver to be below 700.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.
num_lifs (INT): Number of LIFs on this Vserver.

scsiblade.lun events

scsiblade.lun.ids.change

Severity

ERROR

Description

This message occurs when the system detects a change in identifiers (serial number, UUID, device ID) of a LUN. As a result, SAN hosts might see the previous identifiers of the LUN. Other LUNs on specified volume are also affected. This can occur due to incomplete processing of a 'snapmirror break' operation for the volume containing this LUN. It can also occur due to the command 'lun rescan' having been issued without following up with bringing the volume offline and then bringing it online.

Corrective Action

If the LUN is in a mirrored volume and wafliron has been run on the aggregate containing the volume, issue the command 'lun rescan -oovc-to-vol'. Otherwise, bring the volume offline and then online.

Syslog Message

A change in identifiers of a LUN in Vserver %s and volume with MSID %llu has been detected. The previous and new serial numbers are '%s', '%s'. The previous and new UUIDs are '%s', '%s'. The previous and new device text IDs are '%s', '%s'. The previous and new device binary IDs are '%s', '%s'. Other LUNs on this volume are also affected.

Parameters

vserver (STRING): Name or UUID of the Vserver.
volumeMSID (LONGINT): MSID of the container volume.
prevSerial (STRING): Previous LUN serial number.
newSerial (STRING): New LUN serial number.
prevUUID (STRING): Previous LUN UUID.
newUUID (STRING): New LUN UUID.
prevDevTextID (STRING): Previous LUN Device Text ID.
newDevTextID (STRING): New LUN Device Text ID.
prevDevBinID (STRING): Previous LUN Device Binary ID.
newDevBinID (STRING): New LUN Device Binary ID.

scsiblade.lun.move.error

Severity

ERROR

Description

This message occurs when the result status message of a LUN move job is lost. The LUN move job will not complete until this message is received, even if the LUN has been moved.

Corrective Action

Use the 'lun move show' command to see if the affected job is still running. If it is, then find the affected LUN path by finding the other EMS entries with the same job UUID and file ID. Once the affected LUN has been found, then offlining and onlining the destination volume to which the LUN is being moved will make the On Demand job manager retry the operation. If the success status is 1 then all lun maps and QoS entries were successfully updated, otherwise they were not. For further assistance, contact NetApp technical support.

This message occurs when the result status %d of a LUN move job %s for file ID %llu is lost.

Parameters

Success (INT): Success status contained in the lost message.
OnDemandUUID (STRING): UUID of the On Demand job.
OnDemandIndex (LONGINT): Index of File in the On Demand Job.

scsiblade.lun.move.fail

Severity

ERROR

Description

This message occurs when a commit operation fails while updating LUN maps during a LUN move operation. The LUN move fails if this occurs.

Corrective Action

Use the provided reason to help determine the corrective action, and then retry the command. For further assistance, contact NetApp technical support.

Syslog Message

This message occurs when the RDB update fails for lun move job %s-%llu. Failure reason: %s.

Parameters

OnDemandUUID (STRING): UUID of the On Demand job.
OnDemandIndex (LONGINT): Index of File in the On Demand job.
Reason (STRING): Reason for the failure.

scsiblade.lun.offline.system

Severity

ERROR

Description

This message occurs when a LUN is brought offline by Data ONTAP ® because of a write failure caused by lack of space in the volume.

Corrective Action

Add space to the volume and bring the LUN online using the "LUN modify" command.

Syslog Message

LUN %s in volume with MSID %llu on Vserver %s has been brought offline due to lack of space in the volume.

Parameters

lunSerial (STRING): Serial number of the LUN.
volumeMSID (LONGINT): MSID of the volume.
vserver (STRING): Name or UUID of the Vserver.

scsiblade.lun.stale.map

Severity

ERROR

Description

This message occurs when a LUN or NVMe namespace attributes lookup operation fails because the LUN Vdisk ID or NVMe namespace NSID is not known to Vdisk Operations and Management. This results in degraded switchover, switchback, and Vserver initialization times.

Corrective Action

Verify that the volume is online by using the "volume show -vserver [vserver name] -volume [volume name] -fields state" command. If necessary, bring the volume online by using the "volume online -vserver [vserver name] -volume [volume name]" command. If you cannot find the volume or the problem persists, contact NetApp technical support for assistance with the diagnostic privilege commands to view and remove stale maps.

Syslog Message

Could not look up LUN or NVMe namespace attributes for the object with ID '%s' in volume with MSID '%llu' in Vserver '%s'.

Parameters

vdiskId (STRING): Vdisk ID of the LUN or NSID of the NVMe namespace.
volume (LONGINTHEX): Volume identifier.
vserver (STRING): UUID of the Vserver that hosts the LUN or NVMe namespace.

scsiblade.lun.state.invalid

Severity

ERROR

Description

This message occurs when a LUN map operation fails because the state of the LUN in the SAN cache is incorrect.

Corrective Action

Shut down the node and retry mapping the LUN by issuing the ZAPI/CLI command to one of the other nodes in the cluster. Reboot the node once the LUN has been successfully mapped.

Syslog Message

The LUN with Vdisk ID %s on Vserver "%s" cannot be mapped because its state in the SAN cache is incorrect.

Parameters

vdiskId (STRING): Vdisk ID of the LUN.
vserver (STRING): UUID of the Vserver that hosts the LUN.

scsiblade.mapped events

scsiblade.mapped.ns.attr.mod

Severity

ERROR

Description

This message occurs when a mapped NVMe namespace attribute changes as a result of a management operation. Changes in NVMe namespace attributes like size, state, or OS type, are not supported in this release.

Corrective Action

Remove the namespace map using "vserver nvme subsystem map remove" command, then reapply it with the "vserver nvme subsystem map add" command.

Syslog Message

The Namespace attributes of the Namespace with Vdisk ID '%s' in volume with MSID '%llu' in Vserver '%s' changed.

Parameters

vdiskId (STRING): Vdisk ID of the LUN.
volume (LONGINTHEX): Volume identifier.
vserver (STRING): UUID of the Vserver that hosts the LUN.

scsiblade.mcc events

scsiblade.mcc.vs.load.wm

Severity

NOTICE

Description

This message occurs when the Vserver load during MCC switchover/switchback consumes majority of the 120 second MAX timeout. The LOW and HIGH watermark indicates the possibility of exceeding the 120 second MAX timeout, which could lead to All Paths Down condition on the host.

Corrective Action

(None).

Syslog Message

MCC Vserver load hit %s watermark set to %d seconds.

Parameters

level (STRING): watermark level.
time (INT): time.

scsiblade.mgmt events

scsiblade.mgmt.evt.lost.mem

Severity

ERROR

Description

This message occurs when a SAN management event is lost because the system could not allocate enough free memory. Access to LUNs within the Vserver might be affected. The corresponding Vserver might not be available to process any other management changes and events until the node is rebooted to clear this error condition.

Corrective Action

Perform a planned takeover and giveback.

Syslog Message

A SAN management event was lost because of lack of available memory. Vserver %s might not be available to process additional SAN management commands and events. Access to LUNs within the Vserver might be affected.

Parameters

vserver (STRING): Name or UUID of the Vserver.

scsiblade.mgmt.locked

Severity

NOTICE

Description

This message occurs when there is a connectivity loss within the cluster. The SAN configuration is locked and commands to change the SAN configuration are rejected.

Corrective Action

(None).

Syslog Message

One or more cluster nodes have lost connectivity. The SAN configuration will remain locked and reject any commands to change the configuration until connectivity is restored.

Parameters

(None).

scsiblade.mgmt.unlocked

Severity

NOTICE

Description

This message occurs when connectivity to all cluster nodes is established. The SAN configuration is unlocked and commands to change the SAN configuration are allowed.

Corrective Action

(None).

Syslog Message

Connectivity to all cluster nodes is available. The SAN configuration is unlocked and can be modified.

Parameters

(None).

scsiblade.mgmt.wedged

Severity

EMERGENCY

Description

This message occurs when the SAN management plane encounters an error that prevents further SAN management commands from being processed.

Corrective Action

Contact NetApp technical support.

Syslog Message

SAN management has encountered an error and SAN configuration changes on this node and other nodes in the cluster will fail with timeout errors until corrected.

Parameters

(None).

scsiblade.object events

scsiblade.object.out.of.sync

Severity

ERROR

Description

This message occurs when a SAN management event receives a timeout error due to network congestion in the system and all efforts of recovery fail. The specific SAN object for which the management event is intended will be out of sync and will have different values in cache and in persistent store. Access to LUNs within the Vserver might be affected.

Corrective Action

Contact NetApp technical support. For further information about correcting the problem, see the knowledgebase article 2017369.

Syslog Message

A SAN management event received a timeout error due to network congestion. Management event %llu on Vserver %s left the SAN object's cache copy out of sync with information in the persistent store. Access to LUNs within the Vserver might be affected.

Parameters

opcode (LONGINT): Operation code.
vserver (STRING): Name or UUID of the Vserver.

scsiblade.offline events

scsiblade.offline

Severity

ERROR

Description

This message occurs when the node loses connectivity with the majority of the cluster. When this occurs, both FCP and iSCSI traffic are disabled on this node. Remote cluster traffic is impacted. After connectivity is restored, the node automatically recovers and enables FCP and iSCSI services.

Corrective Action

Correct the issue that caused the node to lose connectivity with the majority of the cluster. After the issue is corrected, service is restored.

Syslog Message

This node lost connectivity with the majority of the cluster. When this occurs, both FCP and iSCSI traffic are disabled on this node.

Parameters

(None).

scsiblade.online events

scsiblade.online

Severity

NOTICE

Description

This message occurs when the node completes initialization of the SAN configuration cache. FCP and iSCSI traffic are enabled on this node.

Corrective Action

(None).

Syslog Message

This node has completed initialization of the SAN configuration cache. FCP and iSCSI traffic are enabled on this node.

Parameters

(None).

scsiblade.pport events

scsiblade.pport.bsh.cancel.timeout

Severity

NOTICE

Description

PPorts LIF migration started before BSH cancel completed.

Corrective Action

No corrective action

Syslog Message

PPorts LIF migration started before BSH cancel API completed.

Parameters

(None).

scsiblade.pport.fcp.dbo.err

Severity

ERROR

Description

This message occurs during a nondisruptive operation such as takeover or giveback, when the persistent port feature is not functioning due to configuration errors.

Corrective Action

Collect the system logs, and then contact NetApp technical support. Support needs to see the system logs to determine the appropriate corrective action.

Syslog Message

FCP LIF "%s" persistence in Vserver "%s" could not be enabled. Error %u/%u: %s.

Parameters

lif (STRING): Name of the network interface (LIF).
vserver (STRING): Name of the Vserver.
errortype (INT): Error type.
error (INT): Error code.
errorDecString (STRING): Error description string.

scsiblade.pport.fcp.init.err

Severity

ERROR

Description

This message occurs when the persistent port object for a SAN FCP network interface (LIF) fails to be configured during a LIF create operation. LIF persistence will not function during nondisruptive operations like takeover and giveback until the issue is resolved.

Corrective Action

Collect the system logs, and then contact NetApp technical support. Support needs to see the system logs to determine the appropriate corrective action.

FCP LIF "%s" persistence in Vserver "%s" failed to initialize. Error %u/%u: %s.

Parameters

lif (STRING): Name of the FCP network interface (LIF).
vserver (STRING): Name of the Vserver.
errortype (INT): Error type.
error (INT): Error code.
errorDecString (STRING): Error description string.

scsiblade.prop events

scsiblade.prop.done.error

Severity

EMERGENCY

Description

This message occurs when a CTRAN "proposal done" message is not received. The SAN management plane is inoperative for the Vserver until the corrective action is taken.

Corrective Action

For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "scsiblade.prop.done.error" keyword.

Syslog Message

An internal error occurred in a %s group (MSID: %llu). The Vserver %s will not be able to process any management commands.

Parameters

groupType (STRING): CTRAN group type.
volumeMSID (LONGINT): MSID of the volume in case the CTRAN group type is "volume"; otherwise, 0.
vserver (STRING): Name or UUID of the Vserver.

scsiblade.qosvioldetectregfail events

scsiblade.QoSViolDetectRegFail

Severity

ERROR

Description

This message occurs when the Quality-of-Service (QoS) subsystem fails to register for updates during initialization due to an internal error (e.g. there is not enough system memory available). As a result, workloads might not meet their minimum throughput or their service-level objectives (SLOs).

Corrective Action

The registration will continue to be retried. If this message continues to occur, perform a planned takeover/giveback sequence to reset the reporting node nondisruptively by using the "takeover -ofnode (reporting_node)" and "giveback -ofnode (reporting_node)" commands. If the problem persists, contact

Contact NetApp technical support.

Syslog Message

Failed to register for violation detection updates. QoS min-throughput might operate in a limited capacity.

Parameters

errorCode (INT): Error code that was returned during registration.

scsiblade.reloading events

scsiblade.reloading

Severity

NOTICE

Description

This message occurs when the local node is recovering from a connectivity loss by purging and reloading the SAN configuration cache. When this occurs, both FCP and iSCSI traffic are temporarily disabled until the reload is complete.

Corrective Action

(None).

Syslog Message

This node is reloading the SAN configuration cache to recover from a loss of connectivity. While reloading, both FCP and iSCSI services are disabled. When the reload is complete, both services are automatically re-enabled.

Parameters

(None).

scsiblade.san events

scsiblade.san.config.active

Severity

NOTICE

Description

This message occurs when the SAN active-active state has changed.

Corrective Action

(None).

Syslog Message

The symmetric active-active state is %s on %lld LUNs.

Parameters

state (STRING): Active-active state.
num_luns (INT): Number of LUNs.

scsiblade.san.rtpgid.err

Severity

ERROR

Description

This message occurs when a report target port group ID space inconsistency between cluster peers is detected. This can result in no I/O progress or I/O disruption or both on the host.

Corrective Action

Recovery from inconsistency is required. Please contact Contact NetApp technical support. for assistance.

Syslog Message

Consistency group that has LUN %s is in an inconsistent state.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.san.ssm.lu.degraded

Severity

ALERT

Description

This message occurs when a LUN is marked as degraded due to a SnapMirror® Active Synchronous relationship going out of sync. The LUN is no longer accessible from the host.

Corrective Action

Restore LUN access to the host by using the "snapmirror resync" command to bring the out-of-sync relationship back in sync. For assistance, contact technical support.

Syslog Message

LUN %s was marked as degraded due to a SnapMirror Active Synchronous relationship going out of sync.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.san.ssm.lu.online

Severity

NOTICE

Description

This message occurs when a LUN is back online and might be accessible again from the host.

Corrective Action

If the host still can't access the LUN even though the LUN is back online, perform a host-side rescan operation or a reboot to enable the host to access the LUN.

Syslog Message

LUN %s is back online.

Parameters

LUNSerialNumber (STRING): Serial number of the LUN.

scsiblade.tiered events

scsiblade.tiered.lun.offline

Severity

ERROR

Description

This message occurs when a LUN is brought offline by Data ONTAP ® because of too many consecutive failures to access object storage or no response from object storage.

Corrective Action

Bring object storage online and bring the LUN online using the "LUN modify" command.

Syslog Message

LUN %s in volume with MSID %llu on Vserver %s has been brought offline due to too many consecutive failed attempts to access object storage or no response from object storage.

Parameters

lunSerial (STRING): Serial number of the LUN.
volumeMSID (LONGINT): MSID of the volume.
vserver (STRING): Name or UUID of the Vserver.

scsiblade.unavailable events

scsiblade.unavailable

Severity

EMERGENCY

Description

This message occurs when the node loses connectivity with the majority of the cluster and is unable to recover automatically. When this occurs, both FCP and iSCSI traffic are disabled on this node and require manual intervention to come back into service.

Corrective Action

Reboot the node, and if the node is waiting for giveback, perform a giveback operation.

Syslog Message

This node lost connectivity with the majority of the cluster. When this occurs, both FCP and iSCSI traffic are disabled and will remain disabled on this node until corrective actions are taken.

Parameters

(None).

scsiblade.vol events

scsiblade.vol.init.failed

Severity

EMERGENCY

Description

This message occurs when SAN initialization fails for the specified volume on this node. Access to LUNs contained in this volume from this node is not available.

Corrective Action

Reboot the node by performing a planned takeover and giveback.

Syslog Message

SAN configuration in Vserver %s failed to initialize for volume with MSID %llu. Access to LUNs contained in this volume from this node is not available.

Parameters

vserver (STRING): Name or UUID of the Vserver.
volumeMSID (LONGINT): MSID of the volume.
errorType (LONGINT): Error type.
errorCode (LONGINT): Error code.

scsiblade.vol.lun.stale.map

Severity

ERROR

Description

This message occurs when a volume lookup operation fails because the volume is not found. This is an indication that there might be stale LUN maps associated with the volume.

Corrective Action

Contact NetApp technical support for assistance with the (privilege: diag) "lun stale-map" commands.

Syslog Message

Could not lookup the volume with MSID '%llu' in Vserver '%s'. This is an indication that there might be stale lun maps associated with the volume.

Parameters

volume (LONGINTHEX): Volume identifier.
vserver (STRING): Name or UUID of the Vserver.

scsiblade.volume events

scsiblade.volume.event.lost

Severity

EMERGENCY

Description

This message occurs when LUNs in the specified Vserver and volume are not accessible on one or more SAN LIFs. Determine the volume name from an MSID by using the "volume show -vserver [vserver name] -msid [id]" command.

Corrective Action

The corrective action for this error must be determined from system logs. For more information or assistance, contact NetApp technical support.

Syslog Message

Access to LUNs in volume with MSID %llu on Vserver %s has been lost through one or more paths.

Parameters

volume (LONGINTHEX): Volume identifier (MSID).
vserver (STRING): Name or UUID of the Vserver.

scsiblade.vs events

scsiblade.vs.purge.fail

Severity

EMERGENCY

Description

This message occurs when the local node fails to purge the SAN configuration cache for a Vserver. Manual intervention is required to allow reinitialization of the specified Vserver.

Corrective Action

Reboot the node, and if the node is waiting for giveback, perform a giveback operation.

Syslog Message

The local node failed to purge the SAN configuration cache for Vserver %s.

Parameters

vserver (STRING): Name or UUID of the Vserver.

scsiblade.vserver events

scsiblade.vserver.op.timeout

Severity

EMERGENCY

Description

This message occurs when a command or other internal operation becomes blocked within Data ONTAP®. When this situation occurs, the corresponding Vserver cannot handle any other management changes for SAN until this condition is resolved. Also, the command that timed out might not have been completed, limiting access to LUNs within the Vserver.

Corrective Action

For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "scsiblade.vserver.op.timeout" keyword.

Syslog Message

A Vserver internal operation (0x%08x) has timed out. Vserver %s might not be available to process additional SAN management commands and events.

Parameters

operation (LONGINT): Operation code.
vserver (STRING): Name or UUID of the Vserver.

scsitarget events

scsitarget.fcp events

scsitarget.fcp.sfp.inserted

Severity

INFORMATIONAL

Description

This message occurs when a small form-factor pluggable (SFP) is inserted into the Fibre Channel (FC) target adapter.

Corrective Action

You can obtain detailed SFP information by using the 'fcp adapter show' command.

Syslog Message

An SFP was inserted into FC target adapter %s.

Parameters

adapter (STRING): Target adapter name.

scsitarget.fcp.sfp.invalid

Severity

ERROR

Description

This message occurs when an invalid Small Form-factor Pluggable (SFP) is inserted into the adapter. For example, a 10-GB SFP was inserted into an 8-GB FC adapter.

Corrective Action

Replace the SFP with a supported SFP.

Syslog Message

The SFP in FC adapter %s is not valid. (%s)

Parameters

adapter (STRING): Target adapter name.
reason (STRING): Reason for invalid SFP.

scsitarget.fcp.sfp.removed

Severity

INFORMATIONAL

Description

This message occurs when a Small Form-factor Pluggable (SFP) is removed from the Fibre Channel (FC) target adapter.

Corrective Action

(None).

Syslog Message

An SFP was removed from FC target adapter %s.

Parameters

adapter (STRING): Target adapter name.

scsitarget.fcp.sfp.warning

Severity

ERROR

Description

This message occurs when a small form-factor pluggable (SFP) that is not supported for FCoE links is inserted into an adapter that is configured for FCoE. For example, a 1-GB SFP is inserted into a converged network adapter (CNA) port. Note that the underlying Ethernet link might still be supported with the original SFP.

Corrective Action

Replace the SFP with an SFP that supports FCoE link speed.

Syslog Message

The SFP in FC adapter %s does not support 10 Gbit/sec speed. FCoE is supported only at 10 Gbit/sec and so the FCoE link will not be online.

Parameters

adapter (STRING): Target adapter name.

scsitarget.fct events

scsitarget.fct.fntimeout

Severity

ERROR

Description

This message occurs when the Fibre Channel (FC) target's fabric name retrieval mechanism times out on a given adapter port. This can cause failures for the "fcp adapter show" command, and it might also be associated with issues during procedures such as storage virtual machine (SVM) disaster recovery initialization.

Corrective Action

Confirm that the port is still connected to the switch port, and that the switch port is functional. On a MetroCluster system, it might be helpful to run the "fcp adapter show -adapter port -field fabric-name" command, prior to performing operations such as MetroCluster resync.

Syslog Message

Fabric name retrieval mechanism timed out for FC target port: %s with WWPN: %s. Status code: %d.

Parameters

adapterName (STRING): The name of the associated Fibre Channel (FC) host bus adapter port.
wwpn (STRING): World wide port name (WWPN) of the target adapter port that gave the error.
fabricStatus (INT): Status code returned by fabric retrieval call.

scsitarget.fct.linkError

Severity

ERROR

Description

This message occurs when a Fibre Channel (FC) Host Bus Adapter (HBA) encounters a physical layer issue. This might result in the frame being dropped. The following are examples of protocol errors that result in this message: - Bad start of frame (SOF) - Bad end of frame (EOF) - CRC error - Running disparity error - Link Reset primitive detection

Corrective Action

Recurring instances of this message indicate a physical layer issue. Perform the following recovery actions: - Verify that the overall SAN fabric is healthy. - Verify that the SFP is healthy at both endpoints, replace if necessary. - Clean or replace the cables. Contact technical support with the code and status information for further analysis.

Syslog Message

FC target HBA: %s received unexpected error: %s, %s Status1: 0x%x, Status2: 0x%x, Status3: 0x%x.

Parameters

hba (STRING): Name of the target HBA that issued the error.
error1 (STRING): String associated with the error.
error2 (STRING): Additional string associated with the error.
status1 (INTHEX): Firmware status code 1.
status2 (INTHEX): Firmware status code 2.
status3 (INTHEX): Firmware status code 3.

scsitarget.fct.loginfailed

Severity

ERROR

Description

This message occurs when the SLI Fibre Channel target driver encounters a FDISC or FLOGI failure. The failure can cause the FC target port or the LIF to be operationally down.

Corrective Action

Contact technical support for further analysis.

Syslog Message

FC port %s, NPIV port %d failed fabric login with status of %d and an extended status of x%x.

Parameters

hba (STRING): FC HBA where the login failure occurred.
npiv_port (INT): NPIV (N Port ID Virtualization) LIF ID.
status (INT): Status value communicated by the firmware after login processing.

extended_status (INTHEX): Extended status value communicated by the firmware after login processing.

scsitarget.fct.npivErr

Severity

ERROR

Description

This message occurs when the Fibre Channel (FC) fabric does not have NPIV (N Port ID Virtualization) enabled.

Corrective Action

Enable NPIV on the FC fabric for the FC LIF (logical interface) to come online. The fabric port related to the FC LIF should be disabled and then reenabled after NPIV is enabled. Use the "network interface" command to mark the operational status of the LIF as "up".

Syslog Message

NPIV is disabled on the fabric %s port %s. The target HBA resides at host %s at port %s.

Parameters

switch_name (STRING): FC fabric name.
switch_port_num (STRING): Fabric port number where NPIV is disabled.
target_host_name (STRING): Host name of the target node.
target_host_port_name (STRING): Port name of the target HBA.

scsitarget.fct.offlineComplete

Severity

NOTICE

Description

This message occurs when the FCT adapter offline process is complete.

Corrective Action

(None).

Syslog Message

Fibre Channel target adapter %s was brought offline.

Parameters

hba (STRING): HBA (host bus adapter) that was taken offline.

scsitarget.fct.offlineStart

Severity

NOTICE

Description

This message occurs when the FCT adapter offline process starts.

Corrective Action

(None).

Syslog Message

Fibre Channel target adapter %s is being brought offline.

Parameters

hba (STRING): Name of the HBA(host bus adapter) that is being taken offline.

scsitarget.fct.onlining

Severity

NOTICE

Description

This message occurs when the FCT adapter is online.

Corrective Action

(None).

Syslog Message

Fibre Channel target adapter %s is being brought online.

Parameters

hba (STRING): Name of the HBA (host bus adapter) that is being brought online.

scsitarget.fct.pingErr

Severity

ERROR

Description

This message occurs when the ELS_ECHO reply does not match the ELS_ECHO request issued by the 'fcp ping' CLI command. This means that the 'fcp ping' command failed the signal quality tests specified in the Methodologies for Signal Quality Specification (MSQS).

Corrective Action

Check the applicable section of MSQS (http://www.t11.org/ftp/t11/pub/fc/msqs/10-314v3.pdf): if a default payload was specified in the 'fcp ping' command and the platform is 8GFC or lower then the JSPAT (scrambled jitter pattern) test failed. Check the MSQS section 2.1 for a list of tests that JSPAT verifies. If the platform is 10GFC or higher and a default payload was specified, then an OMA (Optical Modulation Amplitude) or VMA (Voltage Modulation Amplitude) test failed. Check the MSQS section 2.2.1 for an explanation of these methods.

Syslog Message

FC ping failed because of a mismatch between request and response payloads. The request payload is %s and the response payload is %s at index %d. The link rate of the port is %d.

Parameters

req_payload (STRING): First mismatched character of ELS ECHO request payload.
res_payload (STRING): First mismatched character of ELS ECHO response payload.

index (INT): Index of the first mismatch between the ECHO request and response payloads.
link_rate (INT): Link rate of the Fibre Channel (FC) port.

scsitarget.fct.port.full

Severity

NOTICE

Description

This message occurs when the number of outstanding commands on a physical FC target port exceeds the supported limit on that port.

Corrective Action

To recover from this condition, evaluate the host fan-in on the port, and then take one of the following actions: - Reduce the number of hosts that are logging in to this port. - Reduce the number of LUs being accessed by the hosts logging in to this port. - Reduce the host command queue depth. Monitor the queue_full counter on the fcp_port CM object, and make sure that it is not increasing. Example: statistics show -object fcp_port -counter queue_full -instance port.portname -raw Monitor and verify that the threshold counter is also not increasing. Example: statistics show -object fcp_port -counter threshold_full -instance port.portname -raw

Syslog Message

FC target port %s has %d outstanding commands, which exceeds the maximum number of commands %d that can be supported by this port.

Parameters

portname (STRING): Port name on which the outstanding commands exceeded the supported limit.
active_commands (INT): Number of outstanding commands on the port.
max_commands (INT): Number of maximum commands supported on the port.

scsitarget.fct.port.offline

Severity

ERROR

Description

This message occurs when the Fibre Channel target port is taken offline due to too many errors received by the FCT driver. As a result, the port is not able to support FCP traffic.

Corrective Action

To determine the cause of the errors, run the "fcp adapter show" command and use the output to determine the next course of action.

Syslog Message

Fibre Channel Target port %s was taken operationally offline due to too many errors received by the FCT driver.

Parameters

adapterName (STRING): The name of the associated Fibre Channel host bus adapter.

scsitarget.fct.port.thresh

Severity

NOTICE

Description

This message occurs when the number of outstanding commands on a physical FC target port exceeds best practices as defined in the SAN configuration guide.

Corrective Action

To recover from this condition, evaluate the host fan-in on the port, and then take one of the following actions: - Reduce the number of hosts that are logging in to this port. - Reduce the number of LUs being accessed by the hosts logging in to this port. - Reduce the host command queue depth. Monitor the threshold_full counter on the fcp_port CM object, and make sure that it is not increasing. Example: statistics show -object fcp_port -counter threshold_full -instance port.portname -raw

Syslog Message

FC target port %s has %d outstanding commands, which exceeds the threshold %d for this port.

Parameters

portname (STRING): Port name on which the outstanding commands exceeded the threshold.
active_commands (INT): Number of outstanding commands on the port.
supported_threshold (INT): Threshold of the number of commands supported on the port.

scsitarget.fct.portLogin

Severity

NOTICE

Description

This message occurs when an initiator logs into a target port.

Corrective Action

(None).

Syslog Message

Login at target FC port: '%s' by initiator port: '%s' address 0x%x. The target virtual port is: '%s'.

Parameters

hba (STRING): Name of target Fiber Channel host bus adapter (HBA) where the port logged in.
portname (STRING): Port name of the initiator that logged in.
addr (INTHEX): Initiator's Fibre Channel 'Port Identifier' or 'Port Address'as defined in FC-PH. This identifier is mapped to the WWPN and reported in the output of the filer CLI "fcp initiator show" command.
lifname (STRING): The name of the virtual port of the FC host bus adapter (HBA) where the initiator logged in.

scsitarget.fct.postFailed

Severity

EMERGENCY

Description

This message occurs when the host bus adapter (HBA) failed its power-on self test (POST).

Corrective Action

Configure the HBA down then up again by using the "fcp config" command. If the HBA consistently fails its POST, replace it. Otherwise, monitor the HBA for intermittent errors and replace it if the errors occur too frequently. As part of the failing POST, an SRAM dump file is saved in the /etc/log directory. Contact NetApp technical support with this file for further analysis.

Syslog Message

FC target HBA %s could not initialize because of a POST failure.

Parameters

hba (STRING): HBA that failed its POST.

scsitarget.fct.reset

Severity

NOTICE

Description

This message occurs when the FCT adapter is being reset.

Corrective Action

(None).

Syslog Message

Resetting Fibre Channel target adapter %s.

Parameters

hba (STRING): Name of the target HBA (host bus adapter) being reset.

scsitarget.fct.sfpRxPowerLow

Severity

ALERT

Description

This message occurs when the power received (RX) by a small form-factor pluggable transceiver (SFP) is at a level below the defined threshold, which might indicate a failing or faulty part.

Corrective Action

Monitor the operating value. If it continues to decrease, then replace the SFP and/or the cables.

Syslog Message

The SFP in FC target adapter %s reports that it is receiving (RX) at a low level of power. Operating value %d (uWatts), Threshold value %d (uWatts).

Parameters

adapter (STRING): Target adapter name.
operating_value (INT): The current operating value. The value is in microwatts (uWatts).

threshold_value (INT): The defined threshold value. The value is in microwatts (uWatts).

scsitarget.fct.sfpTxPowerLow

Severity

ALERT

Description

This message occurs when a small form-factor pluggable transceiver (SFP) is transmitting (TX) power at a level below the defined threshold, which might indicate a failing or faulty part.

Corrective Action

Monitor the operating value. If it continues to decrease then replace the SFP and/or the cables.

Syslog Message

The SFP in FC target adapter %s reports that it is transmitting (TX) at a low level of power. Operating value %d (uWatts), Threshold value %d (uWatts).

Parameters

adapter (STRING): Target adapter name.
operating_value (INT): The current operating value. The value is in microwatts (uWatts).
threshold_value (INT): The defined threshold value. The value is in microwatts (uWatts).

scsitarget.hwpfct events

scsitarget.hwpfct.dump.saved

Severity

NOTICE

Description

This message occurs when an unexpected event or illegal condition is detected by the FC target driver and the contents of the FC target's memory is saved. Dump files are stored on the system's root volume in the /etc/log directory, with the following file name format: *fct*[adapter][date]_[time].[dmp |queue]

Corrective Action

Send the dump file to technical support for analysis.

Syslog Message

A dump for adapter %s was stored in %s.

Parameters

adapter (STRING): Target adapter name.
filename (STRING): Name of the file containing the dump.

scsitarget.hwpfct.els.rjt

Severity

ERROR

Description

This message occurs when an Extended Link Services (ELS) request is rejected by the fabric. Depending on the ELS request that is rejected, the initiator might experience issues discovering the target devices.

Corrective Action

Ensure that the fabric is zoned and configured correctly. Consult NetApp technical support providing the reason code, reason string, and explanation for further analysis.

Syslog Message

The Fibre Channel ELS request %s sent from adapter %s NPIV port %d to port ID 0x%x failed with reason code 0x%x (%s) and explanation code 0x%x.

Parameters

elsrequest (STRING): ELS request that was rejected by the destination port ID.
adapterName (STRING): Name of the associated Fibre Channel host bus adapter (HBA).
npiv_port (INT): NPIV (N Port ID Virtualization) LIF ID of the source of the ELS request.
portID (INTHEX): Destination port ID of the ELS request.
reasonCode (INTHEX): Reason code provided by the destination port ID for rejection of the ELS request.
reason (STRING): Reason text provided by the destination port ID for rejection of the ELS request.
explanationCode (INTHEX): Explanation code provided by the destination port ID qualifying the stated reason.

scsitarget.hwpfct.errorReset

Severity

NOTICE

Description

This message occurs when the FCT driver encounters an error which was resolved by resetting the adapter.

Corrective Action

(None).

Syslog Message

An error was encountered in the FC target driver on Fibre Channel target adapter %s. The adapter will be automatically reset to clear the %s condition.

Parameters

hba (STRING): Name of the target HBA (host bus adapter) to reset.
details (STRING): Details of the error that caused the reset.

scsitarget.hwpfct.extraHBA

Severity

ERROR

Description

This message occurs when the system detects more than the maximum number of supported Fibre Channel target host bus adapters (HBAs). The extra HBAs are not initialized.

Corrective Action

Remove the extra Fibre Channel target HBAs from the system.

Syslog Message

HBA %s will not be initialized. More than %d Fibre Channel target HBAs were found in the system.

Parameters

hba (STRING): Name of the Fibre Channel target HBA (host bus adapter) that were not initialized.
max (INT): Maximum number of supported Fibre Channel target HBAs.

scsitarget.hwpfct.fabRegFail

Severity

ALERT

Description

This message occurs when Fibre Channel target port fails to register with the fabric. As a result the intended initiators can not see the target devices.

Corrective Action

If fabric did not send a rejection the next step is to check cables and connection with the switch. Also ensure that the fabric is zoned correctly. Consult NetApp technical support providing the details and if available, the reason code, string and explanation for further analysis.

Syslog Message

Fibre Channel target adapter %s unable to register fc4_type with fabric and export target devices.

Parameters

hba (STRING): The name of the target HBA (host bus adapter) that failed.
portID (INT): Port ID of the target port trying to register with the fabric.
command (INT): Command that failed during fabric registration.
reasonCode (INTHEX): Reason code (as defined in FC-FS) of the rejection response from the fabric.
reasonString (STRING): Reason string explaining why the request from target was rejected.
explanation (INTHEX): Explanation code (as defined in FC-FS). This provides further detail on the rejection.

scsitarget.hwpfct.globalLogout

Severity

NOTICE

Description

This message occurs when the FC HBA (host bus adapter) detects a link down condition and all the initiators have logged out.

Corrective Action

Confirm that the filer is still connected to the switch and that the switch is functional.

Syslog Message

FC Target %s: Link down, all initiators logged out.

Parameters
  hba (STRING): FC target adapter name.

scsitarget.hwpfct.initFailed

Severity
  ALERT

Description
  This message occurs when the FCT driver fails to initialize the HBA (host bus adapter).

Corrective Action
  Replace the adapter.

Syslog Message
  Initialization of adapter failed on Fibre Channel target adapter %s.

Parameters
  hba (STRING): (None).

scsitarget.hwpfct.linkUp

Severity
  NOTICE

Description
  This message occurs when FCT driver receives a link up notification.

Corrective Action
  (None).

Syslog Message
  Link up on Fibre Channel target adapter %s.

Parameters
  hba (STRING): Name of the target HBA which received link-up.

scsitarget.hwpfct.thirdPartyLogout

Severity
  NOTICE

Description
  This message occurs when the FCT driver determines that an initiator has issued a third-party logout. Because the initiator is logged out, all SCSI commands from this port are aborted. If the global bit was set, all initiators are logged out and all commands are terminated.

Corrective Action
  Check to ensure that the initiator is still connected to the fabric.

Syslog Message

FC target %s: The initiator at port ID: 0x%x (WWPN %s) issued a third-party logout with %s.

Parameters

hba (STRING): FC target adapter name.
port_id (INT): Initiator's Fibre Channel "Port Identifier" or "Port Address", as defined in FC-PH. This identifier is mapped to the WWPN and reported in the output of the system CLI command "fcp initiator show" command.
node (STRING): WWPN of the initiator that changed and had commands reset.
globalBit (STRING): Message to indicate whether the global bit in the third-party logout frame was set.

scsitarget.hwpfct.tooManyInitiatorsConnected

Severity

ERROR

Description

This message occurs when the system detects too many initiators on the Fibre Channel fabric.

Corrective Action

Remove initiators from the fabric until the maximum is no longer being hit. You can remove initiators via zoning or physical disconnection.

Syslog Message

Fibre Channel target adapter %s cannot have more than %d initiators connected. Resetting adapter.

Parameters

hba (STRING): System name for the target HBA(host bus adapter) that has too many initiators attempting to connect to it.
max_initiators (INT): Max initiators that can connect to the HBA.

scsitarget.ispfct events

scsitarget.ispfct.AENErr

Severity

ALERT

Description

This message occurs when Fibre Channel host bus adapter(HBA) returns an event notification to the driver but the driver did not recognize the event type.

Corrective Action

Contact technical support with the code and status information for further analysis.

Syslog Message

Fibre Channel target HBA %s received unexpected AEN code 0x%x, Status1 0x%x, Status2 0x%x, Status3 0x%x and Status4 0x%x.

Parameters

    hba (STRING): Name of the target HBA that gave the error.
    code (INTHEX): Firmware error code.
    status1 (INTHEX): Firmware status code 1.
    status2 (INTHEX): Firmware status code 2.
    status3 (INTHEX): Firmware status code 3.
    status4 (INTHEX): Firmware status code 4.

scsitarget.ispfct.cfmodeChanged

Severity

    NOTICE

Description

    This event generates a notification that the cfmode was changed. Changing the cfmode should only be done in coordination with FCP connected hosts as this can cause devices to change, appear, or disappear on the hosts.

Corrective Action

    (None).

Syslog Message

    FCP cfmode changed from %s to %s.

Parameters

    old_mode (STRING): The cfmode setting before the change.
    new_mode (STRING): The cfmode setting after the change.

scsitarget.ispfct.configChanged

Severity

    NOTICE

Description

    This message occurs when the ISPFCT driver determines that a port configuration has changed.

Corrective Action

    Check to ensure the initiator is still connected to the fabric.

Syslog Message

    FCP target %s reported a port configuration change. %s.

Parameters

    hba (STRING): FCP target adapter name.
    message (STRING): Description of the configuration change.

scsitarget.ispfct.fwErr

Severity

    ERROR

Description

This message occurs when firmware on the Fibre Channel (FC) target host bus adapter (HBA) returns a system error. The system is resetting the HBA in an attempt to recover from the error, but further analysis is necessary to determine the cause of the problem and whether further corrective action is needed.

Corrective Action

Contact NetApp technical support with the subsequent SRAM dump so that the cause of the problem and applicable corrective action can be determined.

Syslog Message

Firmware on FC target HBA %s returned a system error code 0x%x, status1 0x%x, status2 0x%x, status3 0x%x, and status4 0x%x. Resetting HBA to recover from the error, but SRAM dump analysis is needed.

Parameters

hba (STRING): Name of the target HBA that failed.
code (INTHEX): Firmware error code.
status1 (INTHEX): Firmware status code 1.
status2 (INTHEX): Firmware status code 2.
status3 (INTHEX): Firmware status code 3.
status4 (INTHEX): Firmware status code 4.

scsitarget.ispfct.fwfileCksumFailed

Severity

ALERT

Description

This message occurs when the Fibre Channel driver fails to load the firmware file when initializing the adapter. The adapter cannot serve data until the firmware is loaded successfully.

Corrective Action

Reboot the node to reinitialize the adapter. If the adapter still fails to initialize, replace the adapter. For further assistance, contact NetApp technical support.

Syslog Message

Fibre Channel target adapter %s firmware file %s failed checksum after reading %d bytes.

Parameters

hba (STRING): Adapter that failed to load the firmware file.
filename (STRING): Name of file that could not be loaded.
bytesread (INT): Number of bytes that have been read in from the firmware file so far.

scsitarget.ispfct.invalidNVRAMNodeName

Severity

ALERT

Description

This message occurs when ONTAP® software reads an invalid World Wide Node Name (WWNN) from a Fibre Channel target adapter's NVRAM. A default WWNN will be temporarily assigned to the adapter. This might cause fabric zoning not to work correctly and might cause problems with anything that depends on consistent WWNNs and WWPNs.

Corrective Action

Reboot the node. If the problem still exists, replace the adapter. Contact NetApp technical support for assistance.

Syslog Message

Invalid WWNN of Fibre Channel target adapter %s. Assigning temporary default: %s.

Parameters

hba (STRING): Name of the target HBA that has invalid NVRAM
default_name (STRING): Node name being applied to the HBA.

scsitarget.ispfct.linkBreak

Severity

ERROR

Description

ispfct link break notification

Corrective Action

If link break is unexpected check cables, switches and the other host (if direct connected). Please check the Firmware status code 1, 2 and 4 for reason.

Syslog Message

Link break detected on Fibre Channel target adapter %s. Firmware status code status1 0x%x, status2 0x%x, and status4 0x%x.

Parameters

hba (STRING): Name of the target HBA which has lost link
status1 (INTHEX): Firmware status code 1.
status2 (INTHEX): Firmware status code 2.
status4 (INTHEX): Firmware status code 4.

scsitarget.slifct events

scsitarget.slifct.asyncError

Deprecated

Deprecated as of ONTAP® version 9.2.0 in an effort reduce event messages.

Severity

ERROR

Description

This message occurs when the Fibre Channel target device driver encounters an unrecognized asynchronous event notification from the firmware, possibly as a result of a firmware update. The unrecognized event is ignored by the system.

Corrective Action

No administrative action is required. If the messages persist, contact NetApp technical support with the event details for assistance.

Syslog Message

FC port %s encountered an unexpected event of x%x, type of x%x, with additional status of x%x, x%x, x%x.

Parameters

hba (STRING): Name of the port where the event occurred.
async_event_code (INTHEX): Asynchronous event code that was unrecognized by the target driver.
async_event_type (INTHEX): Asynchronous event type that was unrecognized by the target driver.
async_event_word1 (INTHEX): Asynchronous event word_1 that was unrecognized by the target driver.
async_event_word2 (INTHEX): Asynchronous event word_2 that was unrecognized by the target driver.
async_event_word3 (INTHEX): Asynchronous event word_3 that was unrecognized by the target driver.

scsitarget.slifct.fwAutoBoot

Severity

NOTICE

Description

This message occurs when the SLIFCT driver successfully updates the firmware version of the host bus adapter (HBA). The controller will be rebooted automatically to complete the process.

Corrective Action

None; the controller will be rebooted automatically to enable the new HBA firmware.

Syslog Message

FC target HBA %s firmware version updated from %s to %s. The controller will be rebooted automatically to enable the new HBA firmware.

Parameters

hba (STRING): HBA where the firmware version update occurred.
currentversion (STRING): Firmware version the HBA was running.
bundleversion (STRING): Firmware version bundled with Data ONTAP®.

scsitarget.slifct.fwNeedBoot

Severity

ERROR

Description

This message occurs when the SLIFCT driver successfully updates the firmware version of the host bus adapter (HBA), and requires a reboot of the controller to complete the process.

Corrective Action

Reboot the controller to enable the new HBA firmware.

Syslog Message

FC target HBA %s firmware version updated from %s to %s. Reboot the controller to enable the new HBA firmware.

Parameters

hba (STRING): HBA where the firmware version update occurred.
currentversion (STRING): Firmware version the HBA was running.

bundleversion (STRING): Firmware version bundled with Data ONTAP®.

scsitarget.slifct.fwUpdDone

Severity

NOTICE

Description

This message occurs when the SLIFCT driver successfully updates the firmware version of the host bus adapter (HBA).

Corrective Action

(None).

Syslog Message

FC target HBA %s firmware version updated from %s to %s.

Parameters

hba (STRING): HBA where the firmware version update occurred.
currentversion (STRING): Firmware version the HBA was running.
bundleversion (STRING): Firmware version bundled with Data ONTAP®.

scsitarget.slifct.fwUpdErr

Severity

ERROR

Description

This message occurs when the SLIFCT driver encounters an error while updating the firmware version of the host bus adapter (HBA).

Corrective Action

The corrective action for this error must be determined from system logs. For assistance, contact NetApp technical support with the current version, bundle version, status, and additional status values for further analysis.

Syslog Message

FC target HBA %s failed to update the firmware version from %s to %s with the status of x%x and an additional status x%x.

Parameters

hba (STRING): HBA where the firmware version update failure occurred.
currentversion (STRING): Firmware version the HBA is running.
bundleversion (STRING): Firmware version bundled with Data ONTAP®.
status (INTHEX): Status code of the firmware update process.
additional_status (INTHEX): Additional status value communicated by the firmware after login processing.

scsitarget.slifct.linkBreak

Severity

ERROR

Description

This message occurs when the SLIFCT driver receives a link break notification.

Corrective Action

If the link break was unexpected, check the cables and switch connection.

Syslog Message

Link break detected on Fibre Channel target HBA %s with event status %d , topology type %d, status1 0x%x, status2 0x%x.

Parameters

hba (STRING): Name of the target HBA (Host bus adapter) that lost link.
status (INTHEX): Reported event's status.
topology (INTHEX): Code for identifying the topology.
status1 (INTHEX): Value of the SLIPORT_ERROR1 register.
status2 (INTHEX): Value of the SLIPORT_ERROR2 register.

scsitarget.slifct.mboxError

Deprecated

Deprecated as of ONTAP® version 9.2.0 in an effort to reduce event messages.

Severity

ERROR

Description

This message occurs when the SLIFCT host bus adapter (HBA) encounters an error while processing a mailbox command.

Corrective Action

Contact NetApp technical support with the command, subsystem, subopcode, status, and extended status code for further analysis.

Syslog Message

FC port %s has a mailbox processing failure for command x%x, subsystem x%x, subopcode x%x, with the status of %d and the extended status of x%x.

Parameters

hba (STRING): HBA where the mailbox command failure occurred.
command (INTHEX): Mailbox command code.
subsystem (INTHEX): Mailbox subsystem code.
subopcode (INTHEX): Mailbox command subsystem opcode.
status (INT): Status communicated by the firmware for the mailbox command.
extended_status (INTHEX): Extended status communicated by the firmware for the mailbox command.

scsitarget.slifct.rebootRequired

Severity

EMERGENCY

Description

This message occurs when a Fibre Channel adapter experiences an unrecoverable error. The adapter cannot serve data without a node reboot.

Corrective Action

Reboot the node to reinitialize the adapter. If the adapter fails to initialize or continues to experience errors, replace the adapter. For further assistance, contact NetApp technical support.

Syslog Message

Unrecoverable error detected on Fibre Channel target HBA %s with error codes %d and %d.

Parameters

hba (STRING): Name of the target HBA that encountered the error.
ERROR_1 (INT): Value of the SLIPORT_ERROR1 register.
ERROR_2 (INT): Value of the SLIPORT_ERROR2 register.

scsitarget.slifct.retryExc

Deprecated

Deprecated as of ONTAP® version 9.2.0 in an effort to reduce event messages.

Severity

ERROR

Description

This message occurs when the SLI Fibre Channel Target driver encounters multiple Work Queue Entry (WQE) failures of a certain type that exhaust the retry limit.

Corrective Action

Contact NetApp technical support with the type, command code, subtype, status, and extended status values for further analysis.

Syslog Message

FC port %s, NPIV port %d has reached the retry limit %d of WQE processing failure for type %s, command %s, subtype x%x with status of %d and an extended status of x%x.

Parameters

hba (STRING): FC HBA where the WQE failure occurred.
npiv_port (INT): NPIV LIF ID.
retry_limit (INT): Number of times that this WQE can be retried.
type (STRING): Type of WQE.
command (STRING): Name of the command in the WQE.
subtype (INTHEX): Subtype of the command.
status (INT): Status value communicated by the firmware after WQE processing.
extended_status (INTHEX): Extended status value communicated by the firmware after WQE processing.

se events

se.changelog events

se.changelog.full

Severity

NOTICE

Description

This message occurs when Single Instance Storage (SIS) change logging metafile is full during migration workflow through Snapmirror. SIS will be disabled and file will be truncated to recover space.

Corrective Action

Upon replication break, sis will enable. If there is significant loss of savings, then Run "volume efficiency start" command with "-scan-old-data".

Syslog Message

Changelog metafile for volume %s%s%s is full.

Parameters

host (STRING): Owning host of the volume.
vol (STRING): Name of the volume.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

se.gatherer events

se.gatherer.done

Severity

NOTICE

Description

This message occurs when Single Instance Storage (SIS) auto gathering scanner completed on the auto adaptive volume.

Corrective Action

(None).

Syslog Message

Auto adaptive gathering scanner completed for %s %s %s %s %s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

se.gatherer.skip

Severity

NOTICE

Description

This message occurs when Single Instance Storage (SIS) auto adaptive gathering scanner could not be triggered on the volume post migration.

Corrective Action

Run "volume efficiency start" command with "-scan-old-data" to manually start the auto adaptive gathering scanner.

Syslog Message

Auto adaptive gathering scanner on volume %s%s could not be triggered for %s due to error: %s.

Parameters

vol (STRING): Name of the volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
trigger_type (STRING): Type of the trigger that was attempted.
err (STRING): Error message that caused the failure.

se.scan events

se.scan.filecg.stopped

Severity

ERROR

Description

This message occurs when the Single Instance Storage (SIS) scanner is attempting to recompress file-based compression (secondary compression or 8k/16K/32K adaptive compression) in a volume and there is insufficient space in the volume.In this case the recompress operation is halted to allow you to check and enable the autogrow/ autodelete setting on the volume if it is not already enabled.

Corrective Action

Consider rerunning the operation manually after enabling the autogrow/autodelete setting on the volume.

Syslog Message

Recompression of file based compressed blocks to container level compression is halted because volume '%s' might run out of space during this procedure. SIS scan type '%s'.

Parameters

volume (STRING): Volume name.
scan_type (STRING): SIS scan type.

secd events

secd.asidtrans events

secd.asidTrans.invalidAsid

Severity

ALERT

Description

This message occurs when ONTAP® software cannot translate an abbreviated SID to a Windows SID. An abbreviated SID is an internal ID maintained by ONTAP. This failure can cause CIFS share access issues.

Corrective Action

Contact NetApp technical support.

Syslog Message

For Vserver "%s", ONTAP could not translate an abbreviated SID to a Windows SID.

Parameters

vserverName (STRING): Vserver associated with this operation.

secd.authsys events

secd.authsys.lookup.failed

Severity

ERROR

Description

This message occurs when the incoming UNIX user ID (UID) that tries to mount or access a mount point cannot be looked up in any of the name-services (NIS, LDAP, file).

Corrective Action

Ensure that the UNIX UID that is trying to mount or access a mount point is part of a name-service, such as NIS, LDAP, or file.

Syslog Message

Unable to retrieve credentials for UNIX user with UID (%u) on Vserver (%s) for client with IP address (%s).

Parameters

uid (INT): UNIX UID.
vserverName (STRING): Name of the Vserver.
clientIP (STRING): IP Address of the client.

secd.cifs events

secd.cifs.machacct.missing

Severity

ALERT

Description

This message occurs when the CIFS server machine account is missing from the Active Directory domain.

Corrective Action

Create the missing CIFS server machine account in Active Directory under the appropriate domain and organizational unit. Then run "vserver cifs password-change" command to begin using it.

Syslog Message

The CIFS server machine account '%s' for Vserver '%s' is missing from the Active Directory domain '%s'.

Parameters

acctName (STRING): Name of the missing CIFS server machine account.
vserverName (STRING): Vserver whose CIFS server machine account is missing.
domainName (STRING): Name of the Active Directory domain.

secd.cifsauth events

secd.cifsAuth.denied

Severity

ERROR

Description

This message occurs when a CIFS authentication attempt fails for any reason other than an unknown user name or bad password.

Corrective Action

Examine the failure details to determine corrective action. A common failure is the inability to communicate with a domain controller.

Syslog Message

vserver (%s) Cannot authenticate CIFS user. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.cifsAuth.noNameMap

Severity

ERROR

Description

This message occurs when a CIFS authentication succeeds, but system cannot map the Windows user to an appropriate UNIX user.

Corrective Action

Examine the failure details to determine corrective action. Common failures include no appropriate Windows-to-UNIX name mapping rules, no configured default UNIX user, or the inability of the system to communicate with NS-SWITCH authorization sources.

Syslog Message

vserver (%s) CIFS name to UNIX name mapping problem. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.cifsAuth.noUnixCreds

Severity

ERROR

Description

This message occurs when the system is unable to retrieve necessary UNIX credentials for a Windows user during the CIFS authentication process.

Corrective Action

Examine the failure details to determine corrective action. A common failure is the inability to communicate with NS-SWITCH authorization sources.

Syslog Message

vserver (%s) Cannot get UNIX credentials for CIFS user. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.cifsAuth.problem

Severity

ERROR

Description

This message occurs when a CIFS authentication attempt fails for any reason other than an unknown user name or bad password.

Corrective Action

Examine the failure details to determine corrective action. Common failures include the inability to communicate with domain controllers, NIS servers, or LDAP servers due to connectivity or configuration problems.

Syslog Message

vserver (%s) General CIFS authentication problem. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.conn events

secd.conn.auth.failure

Severity

NOTICE

Description

This message occurs when the Vserver cannot establish a TCP/UDP connection to or be authenticated by an outside server such as NIS, LSA, LDAP and KDC. Subsequently, some features of the storage system relying on this connection might not function correctly.

Corrective Action

Ensure that the server being accessed is up and responding to requests. Ensure that there are no networking issues stopping the Vserver from communicating with this server. If the error reported is related to an authentication attempt, ensure that any related configurable user credentials are set correctly.

Syslog Message

Vserver (%s) could not %s over the network to server (%s)%s. Error: %s (%s).

Parameters

vserverName (STRING): Vserver associated with this operation.
connAuthAttempt (STRING): Connection or authentication attempt.
serverInfo (STRING): Name or IP:Port of the server that was related to the failure.
sourceInfo (STRING): Information about the source that was making the connection or authentication.
ErrnoMessage (STRING): Errno message from the connection or authentication failure.
operation (STRING): Operation being performed.

secd.dc events

secd.dc.out.of.pipe.instances

Severity

ALERT

Description

This message occurs when the Windows Domain Controller (DC), while responding to an MSRPC request from Data ONTAP®, returns an error indicating that it ran out of pipe instances in the listening state. This can happen when the requests from Data ONTAP are received by the DC during a timing window when the limited number of listening pipe instance are already allocated to other requests. Such errors received by Data ONTAP might result in longer CIFS/NFS authentication and/or access times, potentially resulting in CIFS/NFS client timeouts.

Corrective Action

Contact Microsoft support.

Syslog Message

MSRPC for Vserver %s to %s:%s was retried %d times (delay: %d usecs).

Parameters

vserver (STRING): Vserver that encountered the failure.
dc (STRING): DC that returned the error.
pipe (STRING): Pipe on the DC.
retries (INT): Number of retries.
delay (INT): Time (usecs) spent retrying.

secd.dns events

secd.dns.server.timed.out

Severity

ERROR

Description

This message occurs when the DNS server fails to respond to a query and timeout occurs.

Corrective Action

Make sure that the DNS server is up and running and that there are no networking issues preventing the Vserver from communicating with the DNS server.

Syslog Message

DNS server %s did not respond to vserver = %s within timeout interval.

Parameters

ipaddr (STRING): Ip address of the DNS server.
vsName (STRING): Name of the Vserver for which DNS response timed out.

secd.dns.srv.lookup.failed

Severity

ERROR

Description

This message occurs when the Domain Name Service (DNS) server fails to look up a service name.

Corrective Action

Make sure that the service name is input correctly and that there are no networking issues preventing the Vserver from communicating with the DNS server.

Syslog Message

DNS server failed to look up service (%s) for vserver (%s) with error (%s).

Parameters

serviceName (STRING): Service name to look up.
vsName (STRING): Name of the Vserver.
errorMsg (STRING): Error message of the failure.

secd.ipq events

secd.ipq.invalid.entry

Severity

ERROR

Description

This message occurs when the IP qualified name-mapping entry is omitted because of an error during the name-mapping check. For example, an error can occur if a host name is configured as the value for ip-qualifier but the hostname lookup fails, in combination with no IP address defined in the name-mapping configuration to validate against the incoming user.

Corrective Action

After resolving the error reported in this message, run the "vserver name-mapping refresh-hostname-ip" command to refresh the name-mapping information.

Syslog Message

Skipping the name-mapping entry on Vserver "%s" for user "%s" at position %u. Reason: %s.

Parameters

vserverName (STRING): Vserver associated with this operation.
userName (STRING): Name of the user.
position (INT): Name-mapping position.
errorString (STRING): Description of the specific error condition: for example, "Failed to lookup hostname gpo.co.in."

secd.kerberos events

secd.kerberos.clockskew

Severity

ERROR

Description

This message occurs when there is a "time error"(clock skew, time skew, time out of bounds). This error indicates that there is a time discrepancy between client and node or client and Key Distribution Center (KDC). The Kerberos authentication request from the client or the node was forwarded to the KDC and it failed because the timestamp encrypted in the Kerberos ticket was different by more than the maximum time difference that is configured on the KDC.

Corrective Action

Ensure that the clock time of the node is identical to that of the client and to that of the KDC. To keep the node and KDC time clocks in synchronization automatically, configure Network Time Protocol (NTP) services on the node. Increasing the clock skew interval may also alleviate this condition: To do so, modify the Kerberos-realm configuration clock-skew parameter (denoted as "Maximum tolerance for computer clock synchronization" in Windows® Active Directory) from the default 300 seconds to 600 seconds or more. Note: Increasing the clock-skew interval makes the client protocols less secure against network replay attacks.

Parameters

vserverName (STRING): Name of the vserver that is having the error.
clientInfo (STRING): Information of the client that is having the error if available.

secd.kerberos.lookupFailed

Severity

ERROR

Description

This message occurs when the Kerberos user is not a part of any name-service. ONTAP maps the Kerberos Service Principal Name(SPN) to a NFS user name while establishing a security context. If the NFS user name is not found in any of the name-services (LDAP, NIS, file), it leads to a failure in establishing security context, which in turn fails the Kerberos mount.

Corrective Action

Ensure that there is a corresponding UNIX user name for the Kerberos Service Principal Name(SPN) in name services such as NIS, LDAP, or file.

Syslog Message

Unable to map Kerberos user (%s) to appropriate UNIX user on Vserver (%s).

Parameters

uname (STRING): Kerberos NFS user.
vserverName (STRING): Name of the Vserver.

secd.kerberos.noAuthdata

Severity

ERROR

Description

This message occurs when a Kerberos ticket for a user does not contain authorization data.

Corrective Action

Ask the user to obtain a new, valid Kerberos ticket and map the share again.

Syslog Message

Kerberos client has no authorization data for Vserver "%s" with user account "%s".

Parameters

vserverName (STRING): Name of the Vserver on which the error occurred.
userAccount (STRING): User account for which there is insufficient credential information.

secd.kerberos.preauth

Severity

ERROR

Description

This message occurs when invalid credentials are provided for an Active Directory user or the machine account password is out of sync with the credentials set in the Active Directory.

Corrective Action

If the reported error is due to invalid credentials, make sure valid credentials are provided for the Active Directory user. Otherwise, if the reported error is due to an out-of-sync machine account password, run the "vserver cifs password-reset -vserver vserver_name" command to update the password in the Active Directory.

Syslog Message

A Kerberos pre-authentication failure occurred for SVM "%s" due to %s.

Parameters

vserverName (STRING): Name of the storage VM (SVM) that is having the error.
errReason (STRING): Reason for the pre-authentication error.

secd.kerberos.tktexpired

Severity

ERROR

Description

This message occurs when the client's ticket has expired. This error indicates that the timestamp encrypted in the client's Kerberos ticket has exceeded it's maximum lifetime or expired.

Corrective Action

Ensure that the clock time of the node is identical to that of the client and to that of the KDC. To keep the node and KDC time clocks in synchronization automatically, configure Network Time Protocol (NTP) services on the node. Increasing the clock skew interval may also alleviate this condition: To do so, modify the Kerberos-realm configuration clock-skew parameter (denoted as "Maximum tolerance for computer clock synchronization" in Windows® Active Directory) from the default 300 seconds to 600 seconds or more. Note: Increasing the clock-skew interval makes the client protocols less secure against network replay attacks.

Syslog Message

Kerberos client ticket has expired for vserver (%s)%s

Parameters

vserverName (STRING): Name of the vserver that is having the error.
clientInfo (STRING): Information of the client that is having the error if available.

secd.kerberos.tktnyv

Severity

ERROR

Description

This message occurs when the client presented a ticket to the server that is not yet valid (in relationship to the server time). This error indicates that the clocks on the KDC and the client are not synchronized.

Corrective Action

Ensure that the clock time of the node is identical to that of the client and to that of the KDC. To keep the node and KDC time clocks in synchronization automatically, configure Network Time Protocol (NTP) services on the node. Increasing the clock skew interval may also alleviate this condition: To do so, modify the Kerberos-realm configuration clock-skew parameter (denoted as "Maximum tolerance for computer clock synchronization" in Windows® Active Directory) from the default 300 seconds to 600 seconds or more. Note: Increasing the clock-skew interval makes the client protocols less secure against network replay attacks.

Syslog Message

Kerberos client ticket not yet valid for vserver (%s)%s

Parameters

vserverName (STRING): Name of the vserver that is having the error.
clientInfo (STRING): Information of the client that is having the error if available.

secd.ldap events

secd.ldap.bindDn.missing

Severity

ALERT

Description

This message occurs when the -bind-dn user is not configured and the -bind-as-cifs-server option is set to false in the Lightweight Directory Access Protocol (LDAP) client configuration. This LDAP configuration is not recommended because it might result in CIFS credentials being used for authentication if CIFS configuration is present (even though -bind-as-cifs-server is not set). It might also result in anonymous authentication attempts.

Corrective Action

Configure the bind distinguished name (user) and the bind user's password using the following commands: vserver services name-service ldap client modify -bind-dn vserver services name-service ldap client modify-bind-password

Syslog Message

The LDAP bind DN user is not configured on Vserver %s.

Parameters

vserverName (STRING): Vserver associated with this operation.

secd.ldap.conn.waitTimeout

Severity

ALERT

Description

This message occurs when a connection could not be attempted to any of the configured Lightweight Directory Access Protocol (LDAP) servers. Usually, this issue is seen when the LDAP servers are slow to respond to previous connection requests and SecD has reached the maximum number of simultaneous connection requests. This issue can result in longer CIFS/NFS access times, potentially resulting in client failures or timeouts.

Corrective Action

From an LDAP client workstation, ensure that all configured LDAP servers are responding to requests. Ensure that networking issues do not prevent the cluster from communicating with the servers.

Syslog Message

Connection could not be attempted to the LDAP servers configured on SVM "%s" for LDAP service type (%s) because SecD has exceeded the maximum number of simultaneous connection requests.

Parameters

vserverName (STRING): Storage virtual machine (SVM) associated with this operation.
ldapOperation (STRING): LDAP operation and service for which the connection is required.

secd.ldap.connectFailure

Severity

ALERT

Description

This message occurs when the server could not establish a TCP connection to a Lightweight Directory Access Protocol (LDAP) server.

Corrective Action

From a LDAP client workstation, make sure that the LDAP server is responding to requests. Also make sure that the portmapper on the LDAP server is responding to requests. Make sure that there are no networking issues stopping the cluster from communicating with this LDAP server.

Syslog Message

vserver (%s) could not make a connection over the network to LDAP server (%s) at address (%s) and received error (%s)

Parameters

vserverName (STRING): vserver associated with this operation.
serverName (STRING): Name of the LDAP server that was not responding.
serverAddress (STRING): Address of the LDAP server that was not responding.
ldaperror (STRING): Internal LDAP client library error.

secd.ldap.hostnames.not.resolved

Severity

ERROR

Description

This EMS is generated when none of the configured LDAP hostnames can be resolved.

Corrective Action

Examine the DNS configuration for the corresponding Vserver.

Syslog Message

None of the hostnames can be resolved for Vserver: %s.

Parameters

vserverName (STRING): Vserver associated with this operation.

secd.ldap.hostnames.resolved.partially

Severity

ERROR

Description

This EMS is generated when some of the configured LDAP hostnames cannot be resolved.

Corrective Action

Examine the DNS configuration for the corresponding Vserver.

Syslog Message

Hostnames cannot be resolved for Vserver: %s, unresolvedHosts: %s.

Parameters

vserverName (STRING): Vserver associated with this operation.
unresolvedHostnames (STRING): Hostnames which cannot be resolved.

secd.ldap.noServers

Severity

EMERGENCY

Description

This message occurs when none of the configured Lightweight Directory Access Protocol (LDAP) servers are accepting connections.

Corrective Action

From an LDAP client workstation, make sure that all configured LDAP servers are responding to requests. Ensure that there are no networking issues stopping the cluster from communicating with the configured LDAP servers. Also, ensure that the portmapper running on the LDAP server is working correctly.

Syslog Message

None of the LDAP servers configured for Vserver (%s) are currently accessible via the network for LDAP service type (%s).

Parameters

vserverName (STRING): Vserver associated with this operation.
ldapOperation (STRING): LDAP operation and service for which the connection is required.

secd.ldap.query.timed.out

Severity

ERROR

Description

This message occurs when the LDAP server fails to respond to a query and timeout occurs.

Corrective Action

Because LDAP server timeouts might be the result of connectivity issues between the storage controller and the external service or latency in LDAP server response time, ensure that external connectivity and external services have not been disrupted.

Syslog Message

Vserver '%s': LDAP server %s did not respond to query within timeout (%d seconds) interval.

Parameters

vsName (STRING): Name of the Vserver for which LDAP response timed out.
ipaddr (STRING): IP address of the LDAP server.
timeout (INT): Number of seconds before the LDAP query is timed out.

secd.ldap.referralError

Severity

INFORMATIONAL

Description

This message indicates that the domain controller does not have a copy of the requested object (which exists) and it is providing a location that is more likely to hold the object.

Corrective Action

Modify the environment to avoid LDAP referrals.

Syslog Message

Server (%s) does not hold the target entry for ldap filter (%s) on vserver (%s).

Parameters

serverAddress (STRING): Address of the LDAP server that responded with referral.
ldapSearchFilter (STRING): The Ldap search filter associated with this operation.
vserverName (STRING): Vserver associated with this operation.

secd.ldap.sasl.bind.delayed

Severity

ERROR

Description

This message occurs when a Lightweight Directory Access Protocol (LDAP) server responds slowly to SASL bind requests. This might result in longer SMB/CIFS authentication times, potentially resulting in SMB/CIFS client timeouts. Also, this might affect other LDAP bind requests and Security Daemon (SecD) delays.

Corrective Action

Ensure that there are no networking issues creating intermittent communication problems with the LDAP server. Make sure that the machine running LDAP is responsive and not overloaded.

Syslog Message

LDAP SASL bind taking longer time on server "%s" for SVM "%s".

Parameters

serverAddress (STRING): Address of the LDAP server that is not responding fast enough.
vserverName (STRING): SVM associated with this operation.

secd.ldap.slowServer

Severity

ERROR

Description

This message indicates that the Lightweight Directory Access Protocol (LDAP) server is not responding to requests in the expected time frame.

Corrective Action

Make sure that there are no networking issues creating intermittent communication problems with the LDAP server. Make sure that the machine running LDAP is responsive and not overloaded. From a LDAP client workstation, run LDAP commands to verify long response times.

Syslog Message

from CIFS Server(%s) calls to LDAP server (%s) at address (%s) is executing slowly enough to adversely impact the performance of your server.

Parameters

vserverName (STRING): vserver associated with this operation.
serverName (STRING): Name of the LDAP server that was not responding fast enough.
serverAddress (STRING): Address of the LDAP server that was not responding fast enough.

secd.ldap.starttls.delayed

Severity

ERROR

Description

This message occurs when Lightweight Directory Access Protocol (LDAP) server responses to STARTTLS requests take 5 or more seconds. This might result in longer SMB/CIFS authentication times, potentially resulting in SMB/CIFS client timeouts. Also, this might affect other LDAP bind requests and Security Daemon (SecD) delays.

Corrective Action

Ensure that there are no networking issues creating intermittent communication problems with the LDAP server. Make sure that the machine running LDAP is responsive and not overloaded.

Syslog Message

The STARTTLS operation is taking too long on LDAP server "%s" for SVM "%s".

Parameters

serverAddress (STRING): Address of the LDAP server that is not responding fast enough.
vserverName (STRING): SVM associated with this operation.

secd.ldap.trust.noServers

Severity

ERROR

Description

This message occurs when Security Daemon (SecD) fails to connect to any of the configured Lightweight Directory Access Protocol (LDAP) servers belonging to a trusted domain. Usually, this issue is seen when the LDAP servers are either unreachable or slow to respond. This issue can result in longer CIFS access times, potentially resulting in client failures or timeouts.

Corrective Action

From an LDAP client workstation, ensure that all configured LDAP servers in the trusted domain are responding to requests. Ensure that networking issues do not prevent the cluster from communicating with the servers. If domain controllers (DC's) in trusted domains should not be discovered, run the "vserver cifs options modify -is-trusted-domain-enum-search-enabled false" command.

Syslog Message

None of the LDAP servers configured for SVM "%s" and trusted domain "%s" are currently accessible for LDAP service type "%s".

Parameters

vserverName (STRING): Storage virtual machine (SVM) associated with this operation.
trustedDomain (STRING): Trusted domain for which the LDAP connection is required.
ldapOperation (STRING): LDAP operation and service for which the connection is required.

secd.lsa events

secd.lsa.noServers

Severity

EMERGENCY

Description

This message occurs when none of the configured LSA servers are accepting connections.

Corrective Action

Ensure that all configured LSA servers are responding to requests. Ensure that there are no networking issues stopping the cluster from communicating with the configured LSA servers.

Syslog Message

None of the LSA servers configured for Vserver (%s) are currently accessible via the network.

Parameters

vserverName (STRING): vserver associated with this operation.

secd.nametrans events

secd.nameTrans.groupNotFound

Severity

ERROR

Description

This message occurs when the group name cannot be resolved by any of the entities in the ns-switch for the virtual server.

Corrective Action

If this is a Windows® name, make sure that the name exists in Active Directory. If this is a UNIX® name, make sure that it is in one of the configured ns-switch entities for the virtual server. Make sure that it was entered locally as a unix-group, in the Network Information Service (NIS) maps, or in the Lightweight Directory Access Protocol (LDAP) server.

Syslog Message

vserver (%s) could not resolve the group name (%s) by any of the entities in the ns-switch for the virtual server.

Parameters

vserverName (STRING): vserver associated with this operation.
groupName (STRING): Name of the group that could not be converted to an ID.

secd.nameTrans.invalidConfig

Severity

ERROR

Description

This message occurs when the name resolution configuration for the virtual server is not set up correctly.

Corrective Action

Consult the documentation and correct the ns-switch entry for the virtual server.

Syslog Message

vserver (%s) has an incorrectly configured ns-switch. Check all of the virtual servers to ensure that the ns-switch has been configured correctly.

Parameters

vserverName (STRING): vserver associated with this operation.

secd.nameTrans.invalidUser

Severity

ERROR

Description

This message occurs when the user name cannot be resolved by any of the entities in the ns-switch for the virtual server.

Corrective Action

If this is a Windows® name, make sure the name exists in Active Directory. If this is a UNIX® name, make sure it is in one of the configured ns-switch entities for the virtual server. Make sure that the name was entered locally as a unix-user, in the Network Infomration Service (NIS) maps, or in the Lightweight Directory Access Protocol (LDAP) server.

Syslog Message

vserver (%s) could not resovle user name (%s).

Parameters

vserverName (STRING): vserver associated with this operation.
userName (STRING): Name of the user that could not be converted to an ID.

secd.nameTrans.noNameMapping

Severity

ERROR

Description

This message occurs when no name mappings or default-users are defined to convert a Windows® name to a UNIX® name or a UNIX name to a Windows name.

Corrective Action

Make sure that a default Windows user is defined for the Network File System (NFS) configuration. Make sure that a default UNIX user is defined for the CIFS configuration. Decide to either to create one of the previously mentioned items, or create a mapping rule that maps the user or group in the correct direction.

Syslog Message

vserver (%s) could not map name (%s). Reason: %s.

Parameters

vserverName (STRING): vserver associated with this operation.
userName (STRING): Name of the user that could not be converted to an ID.
attemptedMapping (STRING): Description of the specific error condition.

secd.nameTrans.unknownUser

Severity

ERROR

Description

This message occurs when the user name cannot be resolved by any of the entities in the ns-switch for the virtual server.

Corrective Action

If this is a Windows® name, make sure that the name exists in Active Directory. If this is a UNIX® name, make sure that it is in one of the configured ns-switch entities for the virtual server. Make sure that it was entered locally as a unix-user, in the Network Information Service (NIS) maps, or in the Lightweight Directory Access Protocool (LDAP) server.

Syslog Message

vserver (%s) could not resolve the user name (%s) by any of the entities in the ns-switch for the virtual server

Parameters

vserverName (STRING): vserver associated with this operation.
userName (STRING): Name of the user that could not be converted to an ID.

secd.nameTrans.userNotFound

Severity

ERROR

Description

This message occurs when the user name cannot be resolved by any of the entities in the ns-switch for the virtual server.

Corrective Action

If this is a Windows® name, make sure that the name exists in Active Directory. If this is a UNIX® name, make sure it is in one of the configured ns-switch entities for the virtual server. Make sure that it was entered locally as a unix-user, in the Network Information Service (NIS) maps, or in the Lightweight Directory Access Protocol (LDAP) server.

Syslog Message

vserver (%s) could not resolve the user name (%s) by any of the entities in the ns-switch for the virtual server.

Parameters

vserverName (STRING): vserver associated with this operation.
userName (STRING): Name of the user that could not be converted to an ID.

secd.netgroup events

secd.netgroup.ldap.badFilter

Severity

ERROR

Description

This message occurs if the filter for searching the Lightweight Directory Access Protocol (LDAP) server is found to be invalid. The typical reason for this issue is incorrect LDAP client configuration or a bad netgroup name. Searching for the current netgroup is skipped, so all hosts in the netgroup might not be authorized.

Corrective Action

Use the "vserver services name-service ldap client schema show" command to ensure that the Object Class and Attribute in the LDAP client schema are correct. Check the LDAP configuration on the server side to ensure that the attribute value (such as nisNetgroup) is correct.

Syslog Message

LDAP search on vserver (%s) failed on invalid filter: %s.

vserverName (STRING): The name of the Vserver associated with this operation.
filter (STRING): The invalid filter that caused the LDAP search to fail.

secd.netlogon events

secd.netlogon.noServers

Severity

EMERGENCY

Description

This message occurs when none of the configured Netlogon servers are accepting connections.

Corrective Action

Ensure that all configured Netlogon servers are responding to requests. Ensure that there are no networking issues stopping the cluster from communicating with the configured Netlogon servers.

Syslog Message

None of the Netlogon servers configured for Vserver (%s) are currently accessible via the network.

Parameters

vserverName (STRING): vserver associated with this operation.

secd.nfs events

secd.nfs.groupLimit

Severity

ERROR

Description

This message occurs when Data ONTAP® truncates the number of groups to which a user belongs. This can happen when a user of a UNIX-based system is in more groups than the limit supported by the system.

Corrective Action

Determine the maximum number of groups allowed for the Vserver in question with the "nfs show -vserver <vservername> -fields extended-groups-limit" command. If necessary, configure the limit of extended groups on the Vserver by using the (privilege mode: advanced) command "nfs modify -vserver <vsname> -extended-groups-limit <0..1024>". Make sure that the user does not belong to more than the maximum number of groups supported on the site NIS or LDAP server. (This maximum should correspond to the value of the "extended-groups-limit" field that was either displayed or set in the given commands.)

Syslog Message

User (%s) is in too many groups (%d): on Vserver (%s).

Parameters

uname (STRING): UNIX user name.
gidCount (INT): Total number of auxillary groups that a user belongs to, in various name services.
vserverName (STRING): Name of the Vserver.

secd.nfsauth events

secd.nfsAuth.noCifsCred

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails because of the inability of the system to retrieve a matching CIFS credential for use in multi-protocol security operations.

Corrective Action

Examine the failure details to determine corrective action. This failure usually occurs because the system is unable to communicate with Active Directory.

Syslog Message

vserver (%s) NFS authorization cannot retrieve CIFS credentials. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.nfsAuth.noCifsSid

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails because the system could not resolve an associated Windows security identifier (SID).

Corrective Action

Examine the failure details to determine corrective action. This failure usually occurs because the system is unable to communicate with Active Directory.

Syslog Message

vserver (%s) Unable to resolve CIFS security identifier (SID). %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.nfsAuth.noCifsUser

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails because the Windows user that NFS maps to cannot be found.

Corrective Action

Examine the failure details to determine corrective action. Common failures include faulty UNIX-to-Windows name mapping rules, an improperly configured default Windows user, or the system is unable to communicate with Active Directory.

Syslog Message

vserver (%s) Mapped CIFS user name not found. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.nfsAuth.noNameMap

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails because of a UNIX to Windows name mapping issue.

Corrective Action

Examine the failure details to determine corrective action. Common failures include no appropriate UNIX-to-Windows name mapping rules, no configured default Windows user, or the inability of the system to contact LDAP if LDAP is configured for name mapping.

Syslog Message

vserver (%s) Cannot map UNIX name to CIFS name. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.nfsAuth.noUnixCreds

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails because credentials for a UNIX user cannot be determined.

Corrective Action

Examine the error journal for the collection of events that led to the specific failure. A common failure is the inability to communicate with NS-SWITCH authorization sources.

Syslog Message

Vserver "%s" cannot determine UNIX identity. %s

Parameters

vserverName (STRING): Vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem.

secd.nfsAuth.problem

Severity

ERROR

Description

This message occurs when an NFS authorization attempt fails.

Corrective Action

Examine the failure details to determine corrective action. Common failures include name mapping issues, or the inability to communicate with domain controllers, NIS servers, or LDAP servers due to connectivity or configuration problems.

Syslog Message

vserver (%s) General NFS authorization problem. %s

Parameters

vserverName (STRING): vserver associated with this operation.
failureDetail (STRING): Error journal is a collection of events leading up to a failure. This failure is likely to impact many (if not all) users, and might reflect a misconfiguration or environmental problem..

secd.nis events

secd.nis.connectFailure

Deprecated

Deprecated as of version 9.5 since this EMS is no longer needed.

Severity

ALERT

Description

This message occurs when the server could not establish a TCP connection to a Network Information Service (NIS) server.

Corrective Action

From a UNIX ® workstation, make sure that the NIS server is responding to requests. Also make sure that the portmapper on the NIS server is responding to requests. Make sure that there are no networking issues stopping the cluster from communicating with this NIS server.

Syslog Message

vserver (%s) could not make a connection over the network to NIS server (%s) at address (%s) and received error (%s)

Parameters

vserverName (STRING): vserver associated with this operation.
serverName (STRING): Name of the NIS server that was not responding.
serverAddress (STRING): Address of the NIS server that was not responding.
ErrnoMessage (STRING): Errno message from the connect failure.

secd.nis.noServers

Deprecated

Deprecated as of version 9.5 since this EMS is no longer needed.

Severity

EMERGENCY

Description

This message occurs when none of the configured Network Information Service (NIS) servers are accepting connections.

Corrective Action

From a UNIX® workstation, make sure that all configured NIS servers are responding to requests. Ensure that there are no networking issues stopping the cluster from communicating with the configured NIS servers. Also, ensure that the portmapper running on the NIS server is working correctly.

Syslog Message

None of the NIS servers configured for Vserver (%s) are currently accessible via the network.

Parameters

vserverName (STRING): vserver associated with this operation.

secd.nis.slowServer

Deprecated

Deprecated as of version 9.5 since this EMS is no longer needed.

Severity

ERROR

Description

This message indicates that the Network Information Service (NIS) server is not responding to requests in the expected time frame.

Corrective Action

Make sure that there are no networking issues creating intermittent communication problems with the NIS server. Make sure that the machine running NIS is responsive and not overloaded. From a UNIX ® workstation, run YP commands to verify long response times.

Syslog Message

From CIFS Server(%s) calls to NIS server (%s) at address (%s) is executing slowly enough to adversely impact the performance of your server.

Parameters

vserverName (STRING): vserver associated with this operation.
serverName (STRING): Name of the NIS server that was not responding fast enough.
serverAddress (STRING): Address of the NIS server that was not responding fast enough.

secd.nonetgroupfile events

secd.noNetgroupFile

Severity

ALERT

Description

This message occurs when trying to process a netgroup in an export policy while the Vserver "ns-switch" option is set exclusively to "file" but no netgroup file is loaded. Client requests cannot be processed until a netgroup file is loaded or another name service is added to the Vserver "ns-switch" option.

Corrective Action

Load a netgroup file for the Vserver by using the "netgroup load" command, or add another name service to the Vserver "ns-switch" option.

Syslog Message

Cannot evaluate a netgroup in an export policy without a properly configured "ns-switch" option for Vserver "%s". It is set exclusively to "file" but no netgroup file is loaded.

Parameters

vserverName (STRING): Vserver associated with this operation.

secd.quark events

secd.quark.ddns.updt.failure

Severity

ERROR

Description

This message occurs when the server can not a send dynamic DNS (DDNS) update to the DNS server.

Corrective Action

For "NOTIMP" errors, enable DDNS on the DNS server. For "REFUSED" errors, verify the DDNS settings on the DNS server. For all other errors, Contact NetApp technical support..

Syslog Message

DDNS update failed with error %s.

Parameters

cmdError (STRING): Error from the attempted DDNS update.

secd.quark.sid.lookup.failed

Severity

ERROR

Description

This message occurs when the Active Directory server cannot find the Security Identifier (SID) for a given account name.

Corrective Action

Provide a valid account name.

Syslog Message

Failed to lookup the SID for account name "%s" with error "%s".

Parameters

accountName (STRING): Name of the account whose SID is looked up in the server.
errorMsg (STRING): Error received from the server while doing a SID lookup for the given account name.

secd.rpc events

secd.rpc.authRequest.blocked

Severity

ALERT

Description

This message occurs when a user with the same domain and same client IP address is blocked due to continuous authentication requests with an invalid login password.

Corrective Action

Check if there is an unexpected increase in the number of authentication requests with an invalid login password from a particular CIFS client. Use "statistics show -raw -object secd -instance secd -counter num_rpcs_blocked_due_to_wrong_password" command to check the number of clients blocked due to an invalid password.

Syslog Message

Too many CIFS authentication attempts with an invalid password from a client with IP "%s", user name "%s" and domain "%s" on SVM "%s".

Parameters

clientIP (STRING): IP address of the client that has been blocked.
userName (STRING): User who is trying to mount with an invalid password.
domain (STRING): Domain to which the user belongs.
vserverName (STRING): Storage virtual machine(SVM) associated with this operation.

secd.rpc.server.ready

Severity

INFORMATIONAL

Description

This message occurs when SecD successfully loads the configuration and is ready to serve all RPCs.

Corrective Action

(None).

Syslog Message

SecD is ready to serve all RPCs.

Parameters

(None).

secd.rpc.server.request.dropped

Severity

ERROR

Description

This message occurs when a remote procedure call(RPC) is dropped by SecD due to a lack of memory space. It might occur either when SecD receives too many requests than it can handle or when a number of requests have accumulated due to server connectivity issues.

Corrective Action

Check whether there is an unexpected increase in the number of authentication requests from NFS/CIFS clients. Verify that there are no connectivity issues to the external servers like DNS, LDAP, and DC.

Syslog Message

RPC "%s" that was sent from "%s" was dropped by SecD due to a lack of memory space.

Parameters

rpcName (STRING): Name of the RPC that has been dropped.
callerName (STRING): Caller of the RPC that has been dropped.

secd.single events

secd.single.label.domain

Severity

ERROR

Description

This message occurs when the trusted domains for the CIFS home domain of a Vserver contains a single-label domain (SLD). An SLD configuration is not supported because it can cause CIFS access issues.

Corrective Action

Examine and remove any SLDs configured for the CIFS domain associated with the corresponding Vserver on your domain controller. Additionally, examine and revoke any account's access to the CIFS server where the account is from the trusted SLD.

Syslog Message

Single-label domain (SLD) "%s" was found in the CIFS trusted domains for Vserver %s.

Parameters

domainName (STRING): Trusted SLD.
vserverName (STRING): Vserver associated with this operation.

secd.strong events

secd.strong.auth.required

Severity

ALERT

Description

This message occurs when the external LDAP server configured for a Vserver is enforcing stronger authentication than what the ONTAP® LDAP client is configured for.

Corrective Action

Configure stronger LDAP session security using the following commands: 1. vserver services name-service ldap client modify -session-security 2. vserver cifs security modify -session-security-for-ad-ldap

Syslog Message

Stronger authentication enforced by LDAP server for Vserver %s.

Parameters

vserverName (STRING): Vserver associated with this operation.

secd.unexpectedfailure events

secd.unexpectedFailure

Severity

ERROR

Description

This message occurs when the security daemon captures an unexpected failure.

Corrective Action

Examine the failure details to determine corrective action.

Syslog Message

Unexpected SecD failure in Vserver "%s". Details: %s

Parameters

vserverName (STRING): Vserver associated with this operation.
failureDetail (STRING): The error journal documents the events leading up to the failure. This failure is likely to impact many (if not all) users, and it might indicate a misconfiguration or environmental problem.

secd.unixlookupfailure events

secd.unixLookupFailure

Severity

ERROR

Description

This message occurs when an UNIXi® user or group lookup fails. This failure is likely to impact many or all users, and might indicate a misconfiguration or environmental problem.

Corrective Action

Examine the error journal in the /mroot/etc/mlog/secd.log file to learn more about why the LOOKUP failed. The error journal is a collection of events leading up to a failure. Common failures include the wrong user name or ID and the inability to communicate with the NIS or LDAP servers due to connectivity or configuration problems. If the vserver's NSSWITCH is set to "file", verify that the user or group that is being looked up has been created using the cluster's ngshell interface. If the vserver's NSSWITCH is set to "NIS", run 'yp' commands from an NIS client workstation to verify that the UNIX lookup works on the configured NIS server. If the vserver's NSSWITCH is set to "LDAP", run 'ldap' commands from an LDAP client workstation to verify that the UNIX lookup works on the configured LDAP server. Verify that the cluster can communicate with the configured NIS or LDAP servers.

Syslog Message

UNIX lookup failure on Vserver (%s) for client with IP address (%s). %s

Parameters

vserverName (STRING): vserver associated with this operation.
clientIP (STRING): IP Address of the client.
failureDetail (STRING): Reason for the failure.

sectrace events

sectrace.warning events

sectrace.warning.aboutperf

Severity

ALERT

Description

This message occurs when a security tracing filter is enabled. It can cause a significant performance degradation and should be disabled as soon as it is no longer needed.

Corrective Action

Consider disabling the Security tracing filters as soon as it is no longer needed. 'sectrace filter modify -vserver [id] -index [index] -enabled disabled'

Syslog Message

Security tracing is enabled on Vserver %s for the next %d minutes.

Parameters

vservername (STRING): Name of the vserver on which file/directory tracing is enabled.
duration (INT): Duration of the sectrace filter that is enabled.

securepurge events

securepurge.aborted events

securepurge.aborted

Severity

ERROR

Description

This message occurs when a secure purge operation is aborted in a flexible volume.

Corrective Action

Correct the cause of the error, and then retry the operation.

Syslog Message

Secure purge operation is aborted on the volume '%s' in Vserver '%s'. Error: '%s'.

Parameters

volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.
desc (STRING): Reason for the failure.

securepurge.completed events

securepurge.completed

Severity

NOTICE

Description

This message occurs when a secure purge operation is completed in a flexible volume.

Corrective Action

(None).

Syslog Message

Secure purge operation is completed on the volume '%s' in Vserver '%s'.

Parameters

volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.

securepurge.started events

securepurge.started

Severity

NOTICE

Description

This message occurs when a secure purge operation is started in a flexible volume.

Corrective Action

(None).

Syslog Message

Secure purge operation is started on the volume '%s' in Vserver '%s'.

Parameters

volumename (STRING): Name of the volume.
vservername (STRING): Name of the Vserver.

security events

security.invalid events

security.invalid.login

Severity

ALERT

Description

This message occurs when an attempt is made to access the appliance by using invalid authentication credentials.

Corrective Action

Verify that the user made a genuine attempt to access the system. If not, use the "security login delete" command to either remove the account or use the "security login lock" command to lock the account to disallow access to the system using that user account. Also, strengthen the authentication credentials of the user account by updating it. More detail regarding the authentication failure is available in audit.log file.

Syslog Message

Failed to authenticate login attempt to Vserver: %s, username: %s, application: %s.

Parameters

vserver (STRING): The name of the Vserver to which the access was attempted.
userName (STRING): The user name used to gain access to the Vserver.
application (STRING): The name of the application used to gain access to the Vserver.

service events

ses events

ses.access events

ses.access.noEnclServ

Severity

ALERT

Description

This message occurs when Enclosure Services in the storage system cannot establish contact with the enclosure monitoring process in any disk shelf on the channel. Enclosure Services in the storage system tries periodically to reestablish contact with the disk shelf.

Corrective Action

If the error persists for more than an hour, then reboot the controller.

Syslog Message

No Enclosure Services detected through channel %s.

Parameters

channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".

ses.access.noMoreValidPaths

Severity

ALERT

Description

This message occurs when Enclosure Services in the storage system loses access to the enclosure monitoring process in the disk shelf I/O module.

Corrective Action

Enclosure Services in the storage system tries periodically to reestablish contact with the disk shelf. If the error persists for more than an hour, then halt the storage system, power-cycle the disk shelf, and reboot. If the error still persists, then the shelf I/O module might need to be replaced.

Syslog Message

No more valid paths to Enclosure Services in shelf %d on channel %s.

Parameters

shelf (INT): Disk shelf number on the channel with which access has been lost.
channelName (STRING): Name of the adapter port or switch port associated with the shelf; for example, "7a" or "myswitch:5".

ses.access.noShelfSES

Severity

ERROR

Description

This message occurs when Enclosure Services in the storage system cannot establish contact with the Enclosure Services process in the indicated disk shelf. The system tries periodically to reestablish contact with the disk shelf.

Corrective Action

If the error persists for more than an hour, then the disk shelf module must be power-cycled. If the module is a system CPU module (such as IOM6E), or if the system is attached in a single path to the module, then halt the system, reseat the module, and reboot. In a multipath system, remove the shelf module, wait 30 seconds, and then reinsert the module. If the error persists, then replace the shelf module.

Syslog Message

No SCSI-3 Enclosure Services on channel %s shelf %d.

Parameters

channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".
shelf (INT): Disk shelf number on the channel with which contact has been lost.

ses.access.sesUnavailable

Severity

ALERT

Description

This message occurs when Enclosure Services in the storage system cannot establish contact with the enclosure monitoring process in one or more disk shelves on the channel. The system tries periodically to reestablish contact with the disk shelves.

Corrective Action

If the error persists for more than an hour, then reboot the controller.

Syslog Message

Enclosure Services unavailable for one or more shelves on channel %s.

Parameters

channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".

ses.badsharestorageconfigerr events

ses.badShareStorageConfigErr

Severity

EMERGENCY

Description

This message occurs when a disk shelf module that is not supported in a Shared Storage system, such as an LRC module, is detected in a Shared Storage system.

Corrective Action

Replace the unsupported module with one that is supported.

Syslog Message

Disk shelf %d on adapter %s has an unsupported module for a Shared Storage configuration.

Parameters

shelf_num (INT): Disk shelf number the unsupported module is on.
ha_name (STRING): Host adapter on which the disk shelf resides.

ses.bridge events

ses.bridge.fw.getFailWarn

Severity

ERROR

Description

This message occurs when the bridge firmware revision cannot be obtained.

Corrective Action

Check the connection to the bank of Maxtor drives.

Syslog Message

On channel %s, the bridge firmware revision could not be obtained using disk IDs %d-%d.

Parameters

ChannelName (STRING): Name of the adapter or switch port that the system tried to get the revision number of.
DiskID (INT): Starting ID of the bank of Maxtor disks that was used to obtain the bridge firmware.
DiskRange (INT): Number of drives in that bank of Maxtor disks.

ses.bridge.fw.mmErr

Severity

ERROR

Description

This message occurs when the bridge firmware revision is inconsistent.

Corrective Action

Check the firmware revision number and make sure that they are consistent. You might have to update the firmware.

Syslog Message

On channel %s, the bridge firmware revision appears to be inconsistent : %8.8s and %8.8s.

Parameters

ChannelName (STRING): Name of the channel that contains the inconsistent firmware revision.
PrevRev (STRING): Previous firmware revision.
CurRev (STRING): Current firmware revision.

ses.channel events

ses.channel.rescanInitiated

Severity

INFORMATIONAL

Description

This message occurs when a rescan for enclosure services devices is initiated.

Corrective Action

(None).

Syslog Message

Initiating rescan on channel %s.

Parameters

channelName (STRING): Name of the adapter port or switch port being rescanned; for example, "7a" or "myswitch:5".

ses.config events

ses.config.diskStackMaxError

Severity

ERROR

Description

This message occurs when a stack of shelves contains more disk bays than the maximum number that are allowed.

Corrective Action

Remove shelves from the storage stack until the the number of disk bays do not exceed the maximum number.

Syslog Message

There are a total of %d disk bays on shelves attached to channel "%s", which exceeds the maximum number of disk bays (%d).

Parameters

numDiskBays (INT): Number of disk bays on the storage stack.
channelName (STRING): Name of the adapter port or switch port connected to the storage stack associated with the error (for example, "7a" or "myswitch:5").
maxDiskBays (INT): Maximum number of disk bays that are allowed on the storage stack.

ses.config.drivePopError

Severity

ERROR

Description

This message occurs when the channel has more disk drives on it than are allowed. Systems using synchronous mirroring allow more disk drives per channel than other systems.

Corrective Action

If synchronous mirroring is intended to be used, ensure that the license is installed. Otherwise, reduce the number of disk drives on the channel to no more than the maximum allowed.

Syslog Message

Disk drive population is greater than %d in channel %s; this is an illegal configuration. Synchronous mirroring %s is enabled.

Parameters

fcalTenancy (INT): Maximum number of disk drives allowed on this loop.
channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".
isIsNot (STRING): Whether synchronous mirroring is enabled.

ses.config.IllegalEsh270

Severity

EMERGENCY

Description

This message occurs when ONTAP® software detects one or more Embedded Switched Hub (ESH) disk shelf modules in a disk shelf that is attached to a FAS270. This is not a supported configuration.

Corrective Action

Replace the ESH modules with ESH2 modules.

Syslog Message

One or more ESH modules are attached to a FAS270. This is not a supported configuration. Replace the ESH modules with ESH2 modules.

Parameters

(None).

ses.config.shelfMixError

Severity

EMERGENCY

Description

This message occurs when the channel has a mixture of ATA and Fibre Channel disk shelves; this is not a supported configuration.

Corrective Action

Mixed-mode operation of ATA and Fibre Channel disks on the system is only supported on separate loops. Move all Fibre Channel-based disk shelves to one loop and place all Fibre Channel-to-ATA-based disk shelves on another loop.

Syslog Message

Disk shelves present on channel %s are of different drive types; this is not a supported configuration.

Parameters

channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".

ses.config.shelfPopError

Severity

ERROR

Description

This message occurs when the channel has more disk shelves on it than are allowed.

Corrective Action

Reduce the number of disk shelves on the channel to the number specified.

Syslog Message

Disk shelf population on channel %s is %d. Reduce the number of disk shelves on this channel to %d or fewer.

Parameters

channelName (STRING): Name of the adapter port or switch port associated with the error; for example, "7a" or "myswitch:5".
numShelves (INT): Number of disk shelves on the port.
maxShelves (INT): Maximum number of disk shelves on a port.

ses.disk events

ses.disk.configOk

Severity

INFORMATIONAL

Description

This message occurs when there are no longer any drives in a FAS2050 system's slots 20 through 23.

Corrective Action

(None).

Syslog Message

Disk configuration errors have been cleared.

Parameters

(None).

ses.disk.illegalConfigWarn

Severity

ERROR

Description

This message occurs when disk drives are inserted into the bottom row of a FAS2050 storage appliance. Disk drives are not supported in those slots.

Corrective Action

Remove the disk drives.

Syslog Message

Disk drives are inserted into unsupported drive slots in the bottom row of the storage appliance.

Parameters

(None).

ses.download events

ses.download.powerCyclingChannel

Severity

INFORMATIONAL

Description

This message occurs when the power cycling channel event is issued after a disk shelf firmware download to disk shelves that require a power-cycle to activate the new code.

Corrective Action

(None).

Syslog Message

Power cycling channel %s.

Parameters

channelName (STRING): Name of the adapter port or switch port on which the disk shelf is being power-cycled.

ses.download.shelfToReboot

Severity

INFORMATIONAL

Description

This message occurs after the completion of shelf firmware transfer to the DS14-Mk2-AT (R200) disk shelf, at which point the disk shelf requires about another five minutes to transfer the new firmware to its nonvolatile program memory, whereupon it reboots to begin to execute the new firmware. During this

reboot, a Fibre Channel loop reinitialization occurs, temporarily interrupting the loop.

Corrective Action

(None).

Syslog Message

The DS14-Mk2-AT shelves will be rebooted shortly to run the new firmware. The firmware download process should take about three minutes per shelf.

Parameters

(None).

ses.download.suspendIOForPowerCycle

Severity

INFORMATIONAL

Description

This message occurs when the suspending I/O event signals that the storage subsystem is temporarily stopping I/O to disks while one or more disk shelves have their power cycled after a download, if required by the disk shelf design.

Corrective Action

(None).

Syslog Message

Suspending disk I/O prior to shelf power cycle.

Parameters

(None).

ses.drive events

ses.drive.badPlacement

Severity

ALERT

Description

This message occurs when disk drives are placed in locations that do not provide for proper signal integrity. In some older shelf types only, circuitry in the disk drives conditions the signals on their way through the disk shelves. If the disk drives are not in certain locations, the signal might degrade and cause errors. Disk drives must be kept in the proper locations even if one or more disk drives are removed for maintenance reasons.

Corrective Action

If only loop A is used, always keep at least one disk drive in bays 0-2 and at least one disk drive in bays 3-6. If loop B is also used, always keep at least one disk drive in bays 0-2 and at least one disk drive in bays 4-6. The integrity requirement of both loops is satisfied if disk drives are placed as required for loop B. Remember that bays 3 and 4 are used for enclosure services access in XL400/XL500 disk shelves.

Syslog Message

Improper disk drive placement in channel %s disk shelf %d. Loop integrity requires certain disk shelf bays to be populated.

Parameters

ChannelName (STRING): Name of the affected adapter port or switch port loop.
ShelfID (INT): ID of the disk shelf.

ses.drive.missingFromLoopMap

Severity

ALERT

Description

This message occurs when a disk shelf detects a disk but the storage adapter cannot detect the disk. (Note: If the message "ses.drive.possShelfAddr" subsequently appears, follow the corrective actions in that message.)

Corrective Action

Monitor the storage system for approximately 15 minutes. If a "monitor.shelf.accessError.ok" event appears, then the condition has cleared, and no corrective action is needed. If the problem occurs to multiple disks on the same loop or is not resolved in 15 minutes, check the I/O modules at the back of the disk shelves on that loop for errors.

Syslog Message

The following device attached through adapter %s have not taken expected addresses: %s

Parameters

ChannelName (STRING): Channel the disk shelf is on.
DiskList (STRING): List of disks missing from Loop Map.

ses.drive.missingFromSESMap

Severity

ALERT

Description

This message occurs when the storage adapter detects a disk on the Fibre Channel loop or the SAS domain, but enclosure services in the disk shelf does not report a disk with that address. This error indicates that the disk took an address other than what the disk shelf should have provided, or that enclosure services in the disk shelf cannot be contacted for address information. (Note: If the message "ses.drive.possShelfAddr" subsequently appears, follow the corrective actions in that message.) In this condition, the SCSI Enclosure Services (SES) process in the system might be unable to perform certain operations on the disk, such as setting failure LEDs or detecting disk swaps.

Corrective Action

If the disk is not part of an active aggregate or volume, pull out the disk and push it back into the slot to ensure that the disk is in place. If the problem persists, insert a spare disk into the slot. If the problem is then gone, replace the original disk with the spare one. If the problem occurs to multiple disks on the same loop, check the I/O modules at the back of the disk shelves on that loop for errors. SAS domain disk shelves, DS14mk2 AT disk shelves, and SAS/SATA disk shelves do not rely on disk placement for enclosure services, since they have dedicated SES devices.

Syslog Message

On adapter %s, the device(s) with the following IDs are detected but are not reported as present by the shelf which should have supplied the IDs: %s

Parameters

ChannelName (STRING): Channel the disk shelf is on.
LoopIds (STRING): Loop or SCSI/SAS IDs of the missing disks.

ses.drive.PossShelfAddr

Severity

ERROR

Description

This message occurs in conjunction with the messages ses.drive.missingFromSESmap or ses.drive.missingFromLoopMap when there are devices that have apparently taken a wrong address; the adapter shows device addresses that SCSI Enclosure Services (SES) indicates should not exist, and vice versa. This error is not a fatal condition. It means that SES cannot perform certain operations on the affected disk drives, such as setting failure LEDs, because it is not certain which disk shelf the affected disk drive is in.

Corrective Action

If the problem is throughout the disk shelf, replace the disk shelf. If the error is only one disk drive per disk shelf, the drive might have taken an incorrect address at power-on. Arrange to make this disk drive a spare, and then reseat it to cause it to take its address again. If the problem persists, insert a different spare disk drive into the slot. If the error then clears, replace the original disk drive. If the problem still persists, there is a hardware problem with the individual disk bay. Replace the disk shelf.

Syslog Message

Possible actual locations for devices with unexpected addresses: %s.

Parameters

Msg (STRING): Physical locations of disks that do not have expected addresses in the adapter's map of disks.

ses.fw events

ses.fw.emptyFile

Severity

ERROR

Description

This message occurs when a firmware file is found to be empty during a disk shelf firmware update.

Corrective Action

Obtain the correct firmware file from NetApp and place it in the /etc/shelf_fw directory. You can download the firmware file from the NetApp Support Site at http://support.netapp.com.

Syslog Message

Shelf firmware file %s was empty.

Parameters

fileName (STRING): Name of the empty file.

ses.fw.resourceNotAvailable

Severity

ERROR

Description

This message occurs when there is not enough contiguous memory available to download disk shelf firmware.

Corrective Action

Reduce the amount of system activities before performing a manual disk shelf firmware update. If this does not resolve the issue, reboot the system.

Syslog Message

Not enough memory available to download disk shelf firmware %s.

Parameters

fileName (STRING): Name of the firmware file.

ses.giveback events

ses.giveback.restartAfter

Severity

INFORMATIONAL

Description

This message occurs when SCSI Enclosure Services (SES) is restarted after giveback.

Corrective Action

(None).

Syslog Message

Enclosure Services restarting after release of reservations.

Parameters

(None).

ses.giveback.wait

Severity

INFORMATIONAL

Description

This message occurs when SCSI Enclosure Services (SES) information is not available because the system is waiting for giveback.

Corrective Action

(None).

Syslog Message

Enclosure Services will be unavailable while waiting for giveback.

Parameters

(None).

ses.inconsistent events

ses.inconsistent.config

Severity

ALERT

Description

This message occurs when the system detects an inconsistent configuration of shelf-to-channel connections. One or more shelves on the reported channel are connected to a different set of channels (adapter ports or switch ports) than other shelves in the stack.

Corrective Action

Verify that all cables are fully inserted on the storage shelves connected to the channel. Verify that the shelves are cabled so that all shelves in a stack are connected to the same channels.

Syslog Message

Inconsistent configuration detected for shelf connected to adapter %s.

Parameters

channelName (STRING): Name of the adapter port or switch port where shelf connection inconsistencies are found.

ses.loop events

ses.loop.configErr

Severity

ALERT

Description

This message occurs when the system finds a disk shelf with a Loop Resiliency Circuit (LRC) module before a disk shelf with an Electronically Switched Hub (ESH) module in the loop map.

Corrective Action

Reorder the disk shelves so that the LRC disk shelf is found after the ESH disk shelf.

Syslog Message

Unsupported loop configuration for disk shelves attached to channel %s: A %s (ID %d) was found ahead of a %s (ID %d).

Parameters

channelName (STRING): Name of the channel the disk shelves are attached to.
prodChannel1 (STRING): Disk shelf identity (channel, product, and disk shelf number).
shelfId1 (INT): Disk shelf ID of the disk shelf on the unsupported loop.
prodChannel2 (STRING): Disk shelf identity (channel, product, and disk shelf number).
shelfId2 (INT): Disk shelf ID of the disk shelf on the unsupported loop.

ses.loop.configOk

Severity

INFORMATIONAL

Description

This message occurs when an unsupported Fibre Channel loop configuration error is corrected.

Corrective Action

(None).

Syslog Message

Unsupported loop configuration for disk shelves attached to channel %s was corrected.

Parameters

channelName (STRING): Name of the channel on which the unsupported loop configuration error was corrected.

ses.loop.loopMapUnavailable

Severity

INFORMATIONAL

Description

This message occurs when ONTAP® software cannot contact the disk shelf module on a disk shelf and, therefore, cannot resolve the loop map for a disk shelf.

Corrective Action

For Fibre Channel disk shelves, check whether disk drives are connected to slots 0 and 1 of the disk shelf module and that the disk drives are functional. If not, replace the disk drives. For all other disk shelf types, or if the preceding actions do not correct the error for Fiber Channel disk shelves, reseat the disk shelf module and check if the error is corrected. If not, replace the shelf module.

Syslog Message

Loop map unavailable for loop on channel %s. Could not check for unsupported disk shelf configurations.

Parameters

channelName (STRING): Name of the channel on which the loop map was unavailable.

ses.mismatch events

ses.mismatch.fw.version

Severity

ERROR

Description

This message occurs when the two disk shelf modules within the same disk shelf are running different versions of the firmware.

Corrective Action

Download the latest disk shelf firmware to the disk shelf module that is not up-to-date.

Syslog Message

The disk shelf modules on disk shelf %s.%d are running two different firmware versions. Disk shelf module A is running %s, and disk shelf module B is running %s.

Parameters

channelName (STRING): Name of the adapter port or switch port.
shelfID (INT): ID of the disk shelf.
revision_str (STRING): Revision number for disk shelf module A, the top disk shelf module.
revision_str2 (STRING): Revision number for disk shelf module B, the bottom disk shelf module.

ses.multipath events

ses.multipath.notSupported

Severity

NOTICE

Description

This message occurs when the AT-FCX disk shelf module does not support the multipath high-availability (Multipath HA) configuration.

Corrective Action

Replace this disk shelf module with one that supports the high-availability multipath configuration.

Syslog Message

AT-FCX disk shelf module %s on disk shelf %d on channel %s does not support the-high availability multipath configuration. Replace the module with one that supports the-high availability multipath configuration.

Parameters

shelfSlot (STRING): Slot position the disk shelf module is in, either A for the top slot or B for the bottom slot.
shelfId (INT): Disk shelf identification number of the disk shelf.
channelName (STRING): Name of the channel of the disk shelf.

ses.multipath.ReqError

Severity

ALERT

Description

This message occurs when the system detects that a SAS disk shelf is in a single-path cabling configuration.

Corrective Action

Check for SAS disk shelf enclosures with only a single path by using the 'sasadmin expander_map' command. Physically inspect all SAS cables on the attached storage for secure and correct connection.

Syslog Message

SAS disk shelf detected without a multipath configuration.

Parameters

(None).

ses.psu events

ses.psu.comboError

Severity

ALERT

Description

This message occurs when the power supplies that are installed in a disk shelf are not compatible with each other. Prolonged use of incompatible power supplies can result in failures of power supply units (PSUs).

Corrective Action

Replace one PSU immediately with a compatible model. Use the "storage shelf show -psu-part-number" command to locate all power supplies on the disk shelf, using the part numbers provided in the message as the required command parameter. Consult the NetApp Hardware Universe for compatible part number information.

Syslog Message

Incompatible power supplies were found on disk shelf "%d", serial number: %s, product ID: %s, PSU part numbers: %s, %s.

Parameters

ShelfId (INT): ID of the disk shelf.
serialNumber (STRING): Serial number of the storage shelf enclosure.
ProdId (STRING): Product identification of the shelf.
partNumber1 (STRING): Part number of PSU 1 on the shelf.
partNumber2 (STRING): Part number of PSU 2 on the shelf.

ses.psu.coolingReqError

Severity

ALERT

Description

This message occurs when the installed power supplies are placed so that air flow requirements of the disk shelf are not met. Placement of power supplies and their integrated fans is part of the disk shelf cooling and air flow design.

Corrective Action

Install power supplies in the indicated slots, cable to a power source, and turn them on. If the ses.psu.powerReqError is not presently posted for the system, an existing supply in the shelf can be moved to fill the required slot. A new instance of the error can be ignored while the supply is moved, but it should clear within a few minutes. If it does not, the condition must be corrected.

Syslog Message

Improper power supply placement in channel %s disk shelf %d. Power supplies must be present in power supply bays %s to satisfy air flow requirements.

Parameters

ChannelName (STRING): Name of the affected adapter port or switch port.
ShelfID (INT): ID of the disk shelf.
CoolBays (STRING): PSU bays where PSUs must be installed.

ses.psu.powerReqError

Severity

EMERGENCY

Description

This message occurs when too few power supplies are installed to redundantly satisfy the current-draw requirements of the shelf modules and disk drives in the shelf configuration. The number and type of disk modules and disk drives installed affect the requirements.

Corrective Action

Install the required number of power supplies in the disk shelf. Ensure that they are fully inserted, cabled to a power source, and turned on.

Syslog Message

Not enough power supplies are present in channel %s disk shelf %d to satisfy disk drive and shelf power requirements. The shelf requires %d supplies, but only %d are present.

Parameters

ChannelName (STRING): Name of the affected adapter port or switch port.
ShelfID (INT): ID of the disk shelf.
NumReqd (INT): Number of power supplies required.
NumPresent (INT): Number of PSUs present.

ses.shelf events

ses.shelf.bay.populate

Severity

INFORMATIONAL

Description

This message occurs when one of the drive in bay 1 or 2 is missing.

Corrective Action

(None).

Syslog Message

Disk shelf %s is recommended to have slot 1 and slot 2 populated at all times.

Parameters

shelfName (STRING): Disk shelf name.

ses.shelf.changedId

Severity

ERROR

Description

This message occurs on a SAS disk shelf when the disk shelf ID changed after power is applied to the disk shelf.

Corrective Action

Verify that the disk shelf ID displayed in this message is the same as the disk shelf ID shown on the disk shelf. If they are different and the disk shelf ID displayed in this message is the one you want, reset the disk shelf number to match it. If you want the new disk shelf ID instead of the disk shelf ID displayed in the message, verify that the disk shelf ID you want does not conflict with other disk shelves in the domain. Then power-cycle the disk shelf chassis. You can wait to perform this procedure until your next maintenance window. If the warning persists on both disk shelf modules after you completed the procedure, replace the disk shelf chassis. If it persists on only one disk shelf module, replace the disk shelf module.

Syslog Message

Disk shelf module %d on disk shelf %s.%d indicates that the disk shelf ID has been changed since the disk shelf module was powered on. %s.

Parameters

moduleNumber (INT): Element number of this module: either 1 for Module A or 2 for Module B.
channelName (STRING): Name of the adapter port or switch port associated with the disk shelf; for example, "7a" or "myswitch:5".
shelfNumber (INT): Disk shelf ID reported by the disk shelf before the ID change on the thumbwheel switch.
locationText (STRING): Location of the disk shelf module on the disk shelf.

ses.shelf.ctrlFailErr

Severity

ALERT

Description

This message occurs when SCSI Enclosure Services' (SES) control to a disk shelf fails.

Corrective Action

Check the LEDs on the disk shelf and the disk shelf modules on the back of the disk shelf to see whether there are any abnormalities. If the modules appear to be problematic, replace the applicable module. If the SES target is a disk drive, check to see whether the disk drive failed. If it failed, replace the disk drive.

Syslog Message

Enclosure control failed via %s (disk shelf %d). Alternate path will be used if available.

Parameters

SESTarget (STRING): Address of the SES target for which the SES control failed.
shelfID (INT): Disk shelf ID of the disk shelf that failed.

ses.shelf.disable.block.request

Severity

ALERT

Description

This message is generated when there is a failure while disabling the auto power cycle feature for all shelves that support auto power cycle feature on the system.

Corrective Action

(None).

Syslog Message

Fail while disabling shelf auto power cycle capability during %s (%d).

Parameters

requestOwner (STRING): Name of the requestor who requests to disable the auto power cycle feature.
status (INT): Failure status.

ses.shelf.drawer.min.drives

Severity

INFORMATIONAL

Description

This message occurs when one of the first 4 drives are missing in a drawer.

Corrective Action

Please insert a disk in one of the first 4 bays of the indicated drawer.

Syslog Message

Disk shelf %d, drawer %d, bay %d missing, drawer needs first 4 drives installed.

Parameters

shelfID (INT): Disk shelf ID.
drawerNum (INT): Disk drawer number.

bayNum (INT): Disk bay number.

ses.shelf.drawer.open

Severity

INFORMATIONAL

Description

This message occurs when one of the drawers of a disk shelf has been left open.

Corrective Action

Please close the drawer of the indicated drawer. If a drawer has been left open for an extended period of time, this can affect the cooling of components within the disk shelf.

Syslog Message

Disk shelf %d has drawer %d open.

Parameters

shelfID (INT): Disk shelf ID.
drawerNum (INT): Disk drawer number.

ses.shelf.drwr.phy.rateunkwn

Severity

ALERT

Description

This message occurs when one of the PHY ports of a shelf drawer is reporting an unknown link rate. The PHY port is a physical port in the drawer of the storage shelf that resides on the shelf side. This message indicates an internal error might have occurred in the shelf firmware or software. Communication between the PHY ports and the disk drives in the shelf might have failed or be in degraded states.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Drive shelf "%d", module "%s", drawer "%d", PHY "%d" is reporting an unknown link rate.

Parameters

shelfID (INT): Drive shelf ID.
module (STRING): Drive shelf module.
drawerNum (INT): Shelf drawer number.
phyNum (INT): Shelf drawer PHY number.

ses.shelf.em.ctrlFailErr

Severity

EMERGENCY

Description

This message occurs when SCSI Enclosure Services' (SES) control to the internal disk drives of a system

fails.

Corrective Action

Run the "storage shelf show" command to see whether that disk shelf is still being actively monitored. If the command indicates a failure, there is a hardware failure in the system's internal disk shelf.

Syslog Message

Enclosure control failed via embedded disk shelf %d.

Parameters

shelfID (INT): Disk shelf ID of the embedded disk shelf that failed.

ses.shelf.fw.disrUpdFW

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update operation causes temporary but noticeable interruption of disk I/O. Current disk shelf firware levels do not support nondisruptive upgrade (NDU).

Corrective Action

(None).

Syslog Message

SCSI Enclosure Services (SES) disk shelf firmware update disrupts disk I/O. The current shelf firmware (product revision level %.4s) does not support nondisruptive upgrade (NDU).

Parameters

ProductRev (STRING): Product revision level.

ses.shelf.fw.disrUpdPath

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update operation causes temporary but noticeable interruption of disk I/O. Redundant paths to the disk shelf are required for nondisruptive upgrade (NDU).

Corrective Action

(None).

Syslog Message

SCSI Enclosure Services (SES) disk shelf firmware update disrupts disk I/O. Redundant paths to the disk shelf are needed for nondisruptive upgrade (NDU) to be used.

Parameters

(None).

ses.shelf.fw.update.ndu

Severity

INFORMATIONAL

Description

This message occurs when a shelf firmware update is performed using the nondisruptive upgrade (NDU) procedure.

Corrective Action

(None).

Syslog Message

SCSI Enclosure Services (SES) shelf firmware update will be performed using nondisruptive upgrade (NDU).

Parameters

(None).

ses.shelf.fw.update.pfu.nrdnt

Severity

INFORMATIONAL

Description

This message occurs when a shelf firmware update is performed using the Package Firmware Update (PFU) process because redundant paths to the shelf are not present.

Corrective Action

(None).

Syslog Message

SCSI Enclosure Services (SES) shelf firmware update will be performed using Package Firmware Update (PFU) because redundant paths are not present.

Parameters

(None).

ses.shelf.ldBasedAddr

Severity

ERROR

Description

This message occurs on a serial attached SCSI (SAS) disk shelf when the SAS address of the devices are based on the disk shelf ID instead of the disk shelf backplane serial number. This indicates problems communicating with the disk shelf backplane.

Corrective Action

Reseat the master disk shelf module as indicated by the output of the "storage shelf show" command. If the problem persists, reseat the slave disk shelf module. If the problem persists, find the new master disk shelf module, and replace it. If the problem persists, replace the other disk shelf module. If the problem persists,

replace the disk shelf enclosure.

Syslog Message

Disk shelf module %d on disk shelf %s.%d indicates that its SAS addresses are based on the disk shelf ID, instead of on the disk shelf backplane serial number. %s.

Parameters

moduleNumber (INT): Element number of this module: either 1 for Module A or 2 for Module B.
channelName (STRING): Name of the adapter port or switch port associated with the disk shelf; for example, "7a" or "myswitch:5".
shelfNumber (INT): Disk shelf ID.
locationText (STRING): Location of the disk shelf module on the disk shelf.

ses.shelf.invalNum

Severity

ERROR

Description

This message occurs when ONTAP® software detects that an SAS disk shelf connected to the system has an invalid disk shelf number.

Corrective Action

Power-cycle the disk shelf. If the problem persists, replace the disk shelf modules. If the problem still persists, replace the disk shelf.

Syslog Message

A disk shelf on adapter %s has an invalid disk shelf number of %d. %s.

Parameters

channelName (STRING): Name of the channel the disk shelf is on that is reporting an error.
shelfNumber (INT): Invalid Disk shelf ID.
softId (STRING): String indicating whether a soft disk shelf number is assigned to the disk shelf.

ses.shelf.maxExceeded

Severity

ERROR

Description

This message occurs when more disk shelves are attached than the controller can monitor. The controller cannot detect or identify abnormal conditions in excess shelves, nor can it download firmware to unmonitored shelves. The reported device address is one instance of a device in an unmonitored disk shelf. There might be multiple unmonitored shelves.

Corrective Action

Consult system documentation for the maximum number of supported disk shelves, which might be lower than the number reported here. Reduce the number of attached disk shelves to no more than the documented number. Consolidating disk drives into sparsely populated shelves and removing excess shelves is one way to reduce shelf count.

Syslog Message

More than %d disk shelves are attached. Shelf containing %s and possibly other shelves are not monitored.

Parameters

max_enclosures (INT): Maximum number of disk shelves this system can monitor and control.
device (STRING): Address of the device.

ses.shelf.mmErr

Severity

ALERT

Description

This message occurs when a disk shelf is not supported by the platform it was booted on.

Corrective Action

Check whether the current version of ONTAP® software supports the disk shelf. If not, install an ONTAP version that supports the disk shelf. If the disk shelf is supported, the error might be cleared by hourly attempts by ONTAP to establish proper contact with the disk shelf.

Syslog Message

SCSI Enclosure Services (SES) device accessed by %s (product revision level [%.4s]) (enclosure vendor ID [%.8s]) (enclosure product ID [%.16s]) is not supported on this platform.

Parameters

DeviceName (STRING): Address of the unqualified Enclosure Services device.
ProductRev (STRING): Product revision level.
EnclosureVendorID (STRING): Enclosure Vendor Identification.
EnclosureProductID (STRING): Enclosure Product Identification.

ses.shelf.OSmmErr

Severity

ALERT

Description

This message occurs when there are incompatible ONTAP® software versions in a Shared Storage configuration that would cause SCSI Enclosure Services (SES) not to function properly.

Corrective Action

Update the system that has an earlier ONTAP version to match the one that has the latest ONTAP version.

Syslog Message

Incompatible versions of ONTAP are running on the different systems in a Shared Storage Configuration.

Parameters

(None).

ses.shelf.powercycle.done

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf power-cycle finishes.

Corrective Action

(None).

Syslog Message

Disk shelf power-cycled; resuming disk I/O.

Parameters

(None).

ses.shelf.powercycle.start

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf is power-cycled and SCSI Enclosure Services (SES) needs to wait for it to finish.

Corrective Action

(None).

Syslog Message

Waiting for disk shelf power-cycle to be complete.

Parameters

(None).

ses.shelf.RAS.suggestion

Severity

INFORMATIONAL

Description

This event is generated when various different supported combinations of ESHx type storage controller I/O modules are used in the various different ESHx type storage enclosures. Though this could be a supported configuration, to make the best of the power cycle features it is recommended to keep the FC loops as homogenous as possible.

Corrective Action

For best practices, use only the ESH4 controller modules in the DS14-Mk4-FC enclosures.

Syslog Message

ses.shelf.RAS.suggestion INFO Channel %s, Mixing %s I/O modules is fully supported on a FC loop. However, for improved reliability migration to homogeneous ESH4 configurations is recommended.

Parameters

    channelName (STRING): Name of the adapter port or switch port of the disk shelf.
    supportedControllerModules (STRING): ESHx enclosure modules, ESH/ESH2/ESH4

ses.shelf.reset.auto.fail

Severity

    ERROR

Description

    This event is generated when the automated power cycle attempt in the shelf enclosure - identified by the channel.shelf_id - had failed. The trigger condition for the automated reset is also reported.

Corrective Action

    Try the 'storage power_cycle shelf' on the same shelf. If it still fails, please refer to the "Trouble Shooting Section" of the NDR documentation.

Syslog Message

    %s disk shelf %s.%d [%s] failed to perform an automatic reset (0x%x)

Parameters

    shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.
    channelName (STRING): Name of the adapter port or switch port of the disk shelf that was attempted to be power cycled.
    shelfId (INT): ID of the disk shelf that was attempted to be power cycled.
    serialNumber (STRING): Serial number of the storage shelf enclosure.
    triggerCondition (INT): Trigger reason for the automated reset, as reported by the shelf enclosure.

ses.shelf.reset.auto.good

Severity

    INFORMATIONAL

Description

    This event is generated when the automated power cycle attempt in the shelf enclosure - identified by the channel.shelf_id - had succeeded. The trigger for the automated reset is also reported.

Corrective Action

    (None).

Syslog Message

    %s disk shelf %s.%d [%s] has recovered from an automatic reset (0x%x)

Parameters

    shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.
    channelName (STRING): Name of the adapter port or switch port of the disk shelf that was power cycled.
    shelfId (INT): ID of the disk shelf that was power cycled.
    serialNumber (STRING): Serial number of the storage shelf enclosure.
    triggerCondition (INT): Trigger reason for the automated reset, as reported by the shelf enclosure.

ses.shelf.reset.capability

Severity

INFORMATIONAL

Description

This event is generated when the periodic storage enclosure services monitor detects some of the DS14-Mk4-FC,DS14-Mk2-FC and DS14-Mk2-AT storage enclosures are not being upgraded to the correct requirements, to avail the enhanced power cycle features. This is just an informational message only, not an error. The idea is to make the admin follow the suggested best practices, so that the Filer could make use of the advanced features provided.

Corrective Action

Check the power supply unit information on all the DS14-Mk4-FC, DS14-Mk2-FC and the DS14-Mk2-AT shelf enclosure modules by executing the 'environment shelf' command. Plan to replace the power supply units that are not "Type:HRE capable".

Syslog Message

Some %s disk shelves on this system are capable of automatic power reset, but some do not have appropriate firmware or PSU model. For improved system RAS, consider upgrading shelves to have this capability. The environ shelf command shows this feature's status.

Parameters

shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.

ses.shelf.reset.request

Severity

INFORMATIONAL

Description

This event is generated when the command 'storage power_cycle shelf start' is successfully sent to the shelf - identified by the channel.shelf_id, and is of type DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.

Corrective Action

(None).

Syslog Message

Reset requested on %s disk shelf %s.%d [%s].

Parameters

shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.
channelName (STRING): Name of the adapter port or switch port of the disk shelf to be power cycled.
shelfId (INT): ID of the disk shelf that is to be power cycled.
serialNumber (STRING): Serial number of the storage shelf enclosure.

ses.shelf.reset.request.fail

Severity

ERROR

Description

This event is generated when the command 'storage power_cycle shelf start' sent to the shelf enclosure - identified by the channel.shelf_id - could not power cycle the shelf enclosure successfully.

Corrective Action

Try the 'storage power_cycle shelf start' on the same shelf again. If it still fails, please refer to the "Trouble Shooting Section" of the NDR documentation.

Syslog Message

%s disk shelf %s.%d [%s] failed to reset when requested.

Parameters

shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.
channelName (STRING): Name of the adapter port or switch port of the disk shelf that was attempted to be power cycled.
shelfId (INT): ID of the disk shelf that was attempted to be power cycled.
serialNumber (STRING): Serial number of the storage shelf enclosure.

ses.shelf.reset.request.good

Severity

INFORMATIONAL

Description

This event is generated when the command 'storage power_cycle shelf start' sent to the shelf - identified by the channel.shelf_id, and is of type DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT - has successfully recovered.

Corrective Action

(None).

Syslog Message

%s disk shelf %s.%d [%s] has recovered from a requested reset.

Parameters

shelfType (STRING): Shelf enclosure type, DS14-Mk4-FC, DS14-Mk2-FC or DS14-Mk2-AT.
channelName (STRING): Name of the adapter port or switch port of the disk shelf that was power cycled.
shelfId (INT): ID of the disk shelf that was power cycled.
serialNumber (STRING): Serial number of the storage shelf enclosure.

ses.shelf.reset.unsup.drives

Severity

ERROR

Description

This message occurs when Nondisruptive Recovery (NDR) functionality is disabled due to the presence of Parallel ATA (PATA) disk drives on the disk loop.

Corrective Action

Replace all X266_MTOMC320PSX or X262_MCALY250PSX disk drives and then turn on the automatic reset capability.

Syslog Message

NDR functionality is disabled due to the presence of X266_MTOMC320PSX or X262_MCALY250PSX disk drives on the disk loop.

Parameters

(None).

ses.shelf.sameNumReassign

Severity

ERROR

Description

This message occurs when ONTAP® software detects more than one SAS shelf connected to the same adapter has the same disk shelf number.

Corrective Action

Change the disk shelf number on the disk shelf to one that does not conflict with other disk shelves attached to the same adapter. Then halt the system and reboot the disk shelf.

Syslog Message

Multiple disk shelves with disk shelf number %d are found on channel %s. Disk shelf with serial number %s has been assigned the soft disk shelf number of %d.

Parameters

prevId (INT): Conflicting disk shelf number.
channelName (STRING): Name of the channel the disk shelf is on that is reporting an error.
serialNum (STRING): Serial number of the disk shelf that is being assigned the soft ID.
softId (INT): Newly assigned soft disk shelf number.

ses.shelf.unsupportAllowErr

Severity

ALERT

Description

This message occurs when a disk shelf is not supported by ONTAP® software. ONTAP will continue to use the disk shelf, but environmental monitoring of the disk shelf is not possible.

Corrective Action

Check whether the current version of ONTAP supports this disk shelf. If not, install an appropriate version. If ONTAP does support this disk shelf, this error might be cleared on hourly attempts by ONTAP to establish proper contact with the disk shelf.

Syslog Message

Unsupported disk shelf found on channel %s.

Parameters

ChannelName (STRING): Name of the channel that contains the disk shelf.

ses.shelf.unsupportedErr

Severity

ALERT

Description

This message occurs when a disk shelf is not supported by ONTAP® software.

Corrective Action

Check whether the current version of ONTAP supports this disk shelf. If not, install an appropriate version.

Syslog Message

Unsupported disk shelf found. Taking channel %s offline.

Parameters

ChannelName (STRING): Name of the channel that contains the disk shelf. This channel will be taken offline.

ses.status events

ses.status.ACPError

Severity

ALERT

Description

This message occurs when a failure has been detected in ACP processor that provides alternate control path capability.

Corrective Action

Replace the module. In some disk shelf types, this function is integrated into the SAS interface modules.

Syslog Message

%s ACP Processor error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.ACPInfo

Severity

INFORMATIONAL

Description

This message occurs when a problem previously reported about the ACP Processor has been corrected or when other information about the ACP Processor that does not necessarily require customer action is

reported.

Corrective Action

(None).

Syslog Message

%s ACP Processor information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
infoMsg (STRING): Generic SES information.

ses.status.ACPWarn

Severity

ERROR

Description

This message occurs when a non-fatal condition has been detected in the ACP Processor that provides alternate control path capability.

Corrective Action

Replace the module. In some disk shelf types, this function is integrated into the SAS interface modules.

Syslog Message

%s ACP Processor warning for %s %d: %s. %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
warningMsg (STRING): Generic SES Warning.
warningText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.ATFCXError

Severity

ALERT

Description

This message occurs when the reporting disk shelf detects an error in the indicated AT-FCX module. The module might not be able to perform I/O to disks within the disk shelf.

Corrective Action

Verify that the AT-FCX module is fully seated and secured. If the problem persists, replace the AT-FCX module.

Syslog Message

%s error for %s SES controller module %s: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SES type descriptor text for this AT-FCX module.
module (STRING): Module A is the upper module in the enclosure on the back side. Module B is the lower module in the enclosure on the back side.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the exact warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.ATFCXInfo

Severity

INFORMATIONAL

Description

This message occurs when a previously reported error in the AT-FCX module is corrected, or the system reports other information that does not necessarily require customer action.

Corrective Action

(None).

Syslog Message

%s information for %s SES controller module %s: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SES type descriptor text for this element.
module (STRING): Module A is the upper module in the enclosure on the back side. Module B is the lower module in the enclosure on the back side.
infoMsg (STRING): Generic SES information.

ses.status.battery.error

Severity

ERROR

Description

This message occurs when a storage shelf reports a generic "battery error detected" error. The error could be due to an inability to read the A/D convertor or because the intermodule connections are down.

Corrective Action

If the intermodule connection is down on one or both of the PCIe Switch Modules (PSMs), bring the intermodule connection up (by rebooting the affected module). If the intermodule connection is up on both of the PSMs (there are no errors on both PSMs), replace the coin cell battery. If the issue persists, a module might need to be replaced. Contact NetApp technical support.

Syslog Message

%s battery failure error for %s %d: %s%s. %s.

Parameters

   prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
   typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the battery.
   batteryNumber (INT): SES element number of the battery.
   errorMsg (STRING): Generic SES error.
   errorText (STRING): Description of the error.
   locationText (STRING): Location of the element on the storage shelf.

ses.status.battery.info

Severity

   NOTICE

Description

   This message occurs when a condition that was previously reported about a storage shelf battery has been corrected or when other information about the battery that might not require customer action is reported.

Corrective Action

   (None).

Syslog Message

   %s battery information for %s %d: %s.

Parameters

   prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
   typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the battery.
   batteryNumber (INT): SES element number of the battery.
   infoMsg (STRING): Generic SES information.

ses.status.battery.missing

Severity

   ERROR

Description

   This message occurs when a storage shelf reports that a battery is not installed.

Corrective Action

   Install the battery. If the problem persists, contact NetApp technical support.

Syslog Message

   %s battery warning for %s %d: %s%s. %s.

Parameters

   prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
   typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the battery.
   batteryNumber (INT): SES element number of the battery.
   errorMsg (STRING): Generic SES error.
   errorText (STRING): Exact wording of the warning.
   locationText (STRING): Location of the battery on the storage shelf.

ses.status.battery.threshErr

Severity

ALERT

Description

This message occurs when the element threshold of a battery on a storage shelf is outside the threshold limits.

Corrective Action

Install a new battery. If the problem persists, this indicate a hardware failure. Contact NetApp technical support.

Syslog Message

%s battery failure error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the battery.
batteryNumber (INT): SES element number of the failing battery.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact description of the error.
locationText (STRING): Location of the battery on the storage shelf.

ses.status.bootDv.error

Severity

ERROR

Description

This message occurs when a storage shelf reports a boot device SMART error on a PCIe Switch Module (PSM)

Corrective Action

Replace the boot device. If the issue persists, contact NetApp technical support.

Syslog Message

%s boot device failure for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the boot device.
bootDvNumber (INT): SES element number of the boot device.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the error.
locationText (STRING): Location of the boot device on the storage shelf.

ses.status.bootDv.info

Severity

NOTICE

Description

This message occurs when a condition that was previously reported about a storage shelf boot device has been corrected or when other information about the boot device that might not require customer action is reported.

Corrective Action

(None).

Syslog Message

%s boot device notification for %s %d: %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the boot device.
bootDvNumber (INT): SES element number of the boot device.
infoMsg (STRING): Generic SES information.

ses.status.bootDv.missing

Severity

ERROR

Description

This message occurs when the PCIe Switch Module (PSM) of a storage shelf reports that a partner PSM boot device is not installed.

Corrective Action

Install the boot device on the partner PSM. If the problem persists, contact NetApp technical support.

Syslog Message

%s partner %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the boot device.
bootDvNumber (INT): SES element number of the boot device.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the error.
locationText (STRING): Location of the boot device on the storage shelf.

ses.status.connectorInfo

Severity

INFORMATIONAL

Description

This message occurs when a problem previously reported about the SAS connector has been corrected.

Corrective Action

(None).

%s SAS connector information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
infoMsg (STRING): Generic SES information.

ses.status.connectorWarn

Severity

ERROR

Description

This message occurs when a non-fatal condition has been detected in communication with the SAS connector or its EEPROM. This error does not necessarily mean that the data path through the connector is faulty.

Corrective Action

Ensure that the connector is completely installed. If the error persists, replace the cable first, then the disk shelf I/O module.

Syslog Message

%s SAS connector warning for %s %d: %s. %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
warningMsg (STRING): Generic SES Warning.
warningText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.currentError

Severity

ERROR

Description

This message occurs when a critical condition is detected in the indicated disk shelf current sensor. The disk shelf might be able to continue operation.

Corrective Action

Verify that the PSU and the AC line are supplying power. Monitor the power grid for abnormalities. If all seems to be normal, replace the PSU. If the problem persists, contact NetApp technical support.

Syslog Message

%s current error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this power supply.
psNumber (INT): SES element number of the power supply.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the exact warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.currentInfo

Severity

INFORMATIONAL

Description

This message occurs when an error or warning condition previously reported by or about the disk shelf current sensor is corrected, or the system reports other information about the current in the disk shelf that does not necessarily require customer action.

Corrective Action

(None).

Syslog Message

%s current information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this sensor.
sensorNumber (INT): SES element number of the reporting sensor.
infoMsg (STRING): Generic SES information.

ses.status.currentWarning

Severity

ERROR

Description

This message occurs when a warning condition is detected in the indicated disk shelf current sensor. The disk shelf might be able to continue operation.

Corrective Action

Verify that the PSU and the AC line are supplying power. Monitor the power grid for abnormalities. If all seems to be normal, replace the PSU. If the problem persists, contact NetApp technical support.

Syslog Message

%s current warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this power supply.
psNumber (INT): SES element number of the power supply.
errorMsg (STRING): generic SES error.
errorText (STRING): Description of the exact warning.

locationText (STRING): Location of the module on the shelf.

ses.status.dimm.error

Severity

ERROR

Description

This message occurs when a storage shelf reports a generic "DIMM error detected" error on a PCIe Switch Module (PSM). The error could be because intermodule connections are down.

Corrective Action

If the intermodule connection is down on one or both of the PCIe Switch Modules (PSMs), bring the intermodule connection up (by rebooting the affected module). If the intermodule connection is up on both of the PSMs (there are no errors on both PSMs), replace the DIMM. If the issue persists, a module might need to be replaced. Contact NetApp technical support.

Syslog Message

%s DIMM failure for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the DIMM.
dimmNumber (INT): SES element number of the DIMM.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the error.
locationText (STRING): Location of the DIMM on the storage shelf.

ses.status.dimm.info

Severity

NOTICE

Description

This message occurs when a condition that was previously reported about a storage shelf DIMM has been corrected or when other information about the DIMM that might not require customer action is reported.

Corrective Action

(None).

Syslog Message

%s DIMM notification for %s %d: %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the DIMM.
dimmNumber (INT): SES element number of the DIMM.
infoMsg (STRING): Generic SES information.

ses.status.dimm.missing

Severity

ERROR

Description

This message occurs when the PCIe Switch Module (PSM) of a storage shelf reports that a DIMM is not installed.

Corrective Action

Install the DIMM. If the problem persists, contact NetApp technical support.

Syslog Message

%s %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the DIMM.
dimmNumber (INT): SES element number of the DIMM.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the error.
locationText (STRING): Location of the DIMM on the storage shelf.

ses.status.dimm.threshErr

Severity

ALERT

Description

This message occurs when the element threshold of a DIMM is outside the threshold limits in the indicated PCIe Switch Module (PSM) of a storage shelf.

Corrective Action

Install a new DIMM. If the problem persists, this indicates a hardware failure. Contact NetApp technical support.

Syslog Message

%s DIMM threshold failure error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the DIMM.
dimmNumber (INT): SES element number of the failing DIMM.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the error.
locationText (STRING): Location of the DIMM on the storage shelf.

ses.status.displayInfo

Severity

INFORMATIONAL

Description

This message occurs when a previous condition in the display panel has been corrected.

Corrective Action

(None).

Syslog Message

%s display information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this display panel.
displayNumber (INT): SES element number of this display panel.
infoMsg (STRING): Generic SES information.

ses.status.displayWarning

Severity

ERROR

Description

This message occurs when the enclosure services module has detected a warning condition for the disk shelf display panel. The disk shelf might be unable to provide correct addresses to its disks.

Corrective Action

If possible, verify that the connection between the disk shelf and the display is secure. Verify that the Enclosure Services module or modules are fully seated; replacing them might solve the problem. If the problem persists, the Enclosure Services module that detected the warning condition might be faulty. If the problem persists after the module or modules are replaced, replace the disk shelf. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

%s display warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this display panel.
displayNumber (INT): SES element number of the this display panel.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.driveError

Severity

ERROR

Description

This message occurs when a critical condition has been detected for the disk drive in the shelf. The drive might fail.

Corrective Action

Make sure that the drive is not running on a degraded volume. If it is, then add as many spares as necessary into the system, up to the specifed level. After the volume is no longer in degraded mode, replace the drive that is failing.

Syslog Message

Error on drive %d on %s shelf %s.%d%s.

Parameters

driveNumber (INT): SES element number of the failing drive.
shelfType (STRING): Type of the disk shelf that is experiencing the problem.
channel (STRING): Channel the shelf is on.
shelfNumber (INT): Number of the disk shelf the drive is on.
ErrorText (STRING): Exact error description.

ses.status.driveOk

Severity

INFORMATIONAL

Description

This message occurs when a disk drive that was previously experiencing problem returns to normal operation.

Corrective Action

(None).

Syslog Message

The error on drive %d on %s shelf %s.%d has been corrected.

Parameters

driveNumber (INT): SES element number of the drive.
shelfType (STRING): Type of the disk shelf that contains the drive.
channel (STRING): Channel the shelf is on.
shelfNumber (INT): Number of the disk shelf the drive is on.

ses.status.driveWarning

Severity

ERROR

Description

This message occurs when a non-critical condition has been detected for the disk drive in the shelf. The drive might fail.

Corrective Action

Make sure that the drive is not running on a degraded volume. If it is, then add as many spares as necessary into the system, up to the specified level. After the volume is no longer in degraded mode, replace the drive that is failing.

Syslog Message

Error on drive %d on %s shelf %s.%d%s.

Parameters

driveNumber (INT): SES element number of the failing drive.
shelfType (STRING): Type of the disk shelf that is experiencing the problem.
channel (STRING): Channel the shelf is on.
shelfNumber (INT): Number of the disk shelf the drive is on.
warningText (STRING): Exact warning description.

ses.status.electronicsError

Severity

ALERT

Description

This message occurs when a failure is detected in a module that provides disk enclosure services monitoring capability.

Corrective Action

Replace the shelf module.

Syslog Message

%s environmental monitoring error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.electronicsInfo

Severity

INFORMATIONAL

Description

This message occurs when a problem previously reported about the disk shelf enclosure services electronics has been corrected or when other information about the enclosure electronics that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s environmental monitoring information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).

typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this element.
electrNumber (INT): SES element number of this element.
infoMsg (STRING): Generic SES information.

ses.status.electronicsWarn

Severity

ERROR

Description

This message occurs when a non-fatal condition is detected in a module that provides disk enclosure services monitoring capability.

Corrective Action

Replace the module. In most disk shelf types, this function is integrated into the FC, SCSI, or SAS interface modules.

Syslog Message

%s environmental monitoring warning for %s %d: %s. %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
warningMsg (STRING): Generic SES Warning.
warningText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.enclError

Severity

EMERGENCY

Description

This message occurs when a failure is detected in the disk enclosure (shelf) internal hardware.

Corrective Action

Contact NetApp technical support for assistance with shelf or shelf midplane replacement.

Syslog Message

%s environmental monitoring error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the failed component on the disk shelf.

ses.status.enclInfo

Severity

INFORMATIONAL

Description

This message occurs when a problem previously reported about the disk shelf hardware has been corrected.

Corrective Action

(None).

Syslog Message

%s disk inclosure information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this element.
electrNumber (INT): SES element number of this element.
infoMsg (STRING): Generic SES information.

ses.status.enclWarn

Severity

ERROR

Description

This message occurs when an error condition is present in the disk shelf that causes the shelf fault LED to be lit, including faults in shelf components or disks marked as failed by ONTAP® software.

Corrective Action

Correct error conditions in the disk shelf. Check that the power supplies are in the proper locations, that there are the required number of them, and that they are powered on. Remove failed disk drives. If multiple shelf modules are expected, install a missing module, and ensure that the firmware revisions are at the same level, preferably the latest revision available. If the error persists, contact NetApp technical support for assistance.

Syslog Message

%s disk enclosure warning for %s %d: %s. %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
warningMsg (STRING): Generic SES Warning.
warningText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.etherConn.info

Severity

NOTICE

Description

This message occurs when a problem previously reported about a PCIe switch module (PSM) port's Ethernet connector has been corrected.

Corrective Action

(None).

Syslog Message

%s Ethernet connector information for port %s: %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
connName (STRING): SES element name of this Ethernet connector.
infoMsg (STRING): Generic SES information.

ses.status.etherConn.warn

Severity

ERROR

Description

This message occurs when a non-fatal condition has been detected in communication with a PCIe switch module (PSM) port's external Ethernet connector or its EEPROM. This error does not necessarily mean that the data path through the connector is faulty.

Corrective Action

Verify that the Ethernet cable or transceiver is correctly installed. If the error persists, replace the cable. If necessary,replace the PSM.

Syslog Message

%s Ethernet connector warning for port %s: %s. %s %s.

Parameters

prodChannel (STRING): Storage shelf identity (channel, product, and shelf number).
connName (STRING): SES element name of this Ethernet connector.
warningMsg (STRING): Generic SES warning.
warningText (STRING): Warning text.
locationText (STRING): Location of the module on the storage shelf.

ses.status.fanError

Severity

EMERGENCY

Description

This message occurs when the indicated disk shelf cooling fan or fan module has failed, and the shelf or its components are not receiving required cooling airflow.

Corrective Action

Verify that the fan module is fully seated and secured (the fan is integrated into the power supply module in some disk shelves). If the problem persists, replace the fan module. If the problem still persists, contact NetApp technical support for assistance.

Syslog Message

%s cooling fan error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this fan.
fanNumber (INT): SES element number of this fan.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the error.
locationText (STRING): Location of the module on the disk shelf.

ses.status.fanInfo

Severity

INFORMATIONAL

Description

This message occurs when a condition previously reported about the disk shelf cooling fan or fan module has been corrected or when other information about the fans that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s cooling fan information for %s %d: %s.

Parameters

prodChannel (STRING): Shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this fan.
fanNumber (INT): SES element number of this fan.
infoMsg (STRING): Generic SES information.

ses.status.fanWarning

Severity

NOTICE

Description

This message occurs when a disk shelf cooling fan is not operating to specification, or a component of a fan module has stopped functioning. The disk shelf components continue to receive cooling airflow but might eventually reach temperatures that are out of specification.

Corrective Action

Verify that the fan or fan module is fully seated and secured (fans are integrated into the power supply module in some shelves). If the problem persists, replace the fan module. If the problem still persists, contact NetApp technical support for assistance.

Syslog Message

%s cooling fan warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this fan.
fanNumber (INT): SES element number of this fan.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.inputPowerError

Severity

ALERT

Description

This message occurs when the system detects a failure in the Input Power Monitor. The Input Power Monitor monitors power to the Power Supply Units (PSU).

Corrective Action

Check that the PSU is receiving sufficient power from an AC source.

Syslog Message

%s Input Power Monitor error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the error.
locationText (STRING): Location of the PSU on the disk shelf.

ses.status.inputPowerInfo

Severity

INFORMATIONAL

Description

This message occurs when a previously reported Input Power Monitor problem of a disk shelf is corrected, or when the system is reporting information about the Input Power Monitor that does not necessarily require customer action.

Corrective Action

(None).

Syslog Message

%s Input Power Monitor information for %s %d: %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **typeText** (STRING): SES type descriptor text for this element.
> **electrNumber** (INT): SES element number of this element.
> **infoMsg** (STRING): Generic SES information.

ses.status.inputPowerWarn

Severity

> ERROR

Description

> This message occurs when the system detects a non-fatal condition in the Input Power Monitor of a disk shelf. The Input Power Monitor monitors power to the Power Supply Units (PSU).

Corrective Action

> Check that the PSU is receiving sufficient power from an AC source.

Syslog Message

> %s Input Power Monitor warning for %s %d: %s. %s %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **typeText** (STRING): SES type descriptor text for this element.
> **electrNumber** (INT): SES element number of this element.
> **warningMsg** (STRING): Generic SES warning.
> **warningText** (STRING): Exact wording of the warning.
> **locationText** (STRING): Location of the PSU on the disk shelf.

ses.status.ModuleError

Severity

> ALERT

Description

> This message occurs when the reporting disk shelf has detected an error in the indicated disk shelf module.

Corrective Action

> Verify that the shelf module is fully seated and secure. If the problem persists, replace the disk shelf module.

Syslog Message

> %s %s error for %s %d: %s%s. %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **moduleType** (STRING): Type of this module.
> **typeText** (STRING): SES type descriptor text for this module.
> **ModuleNumber** (INT): Element number of this module: either 1 for Module A or 2 for Module B.
> **errorMsg** (STRING): Generic SES error.
> **errorText** (STRING): Exact wording of the warning.
> **locationText** (STRING): Location of the module on the disk shelf.

ses.status.ModuleInfo

Severity

INFORMATIONAL

Description

This message occurs when a previously reported error in the shelf module has been corrected or when other information that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s %s information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
moduleType (STRING): Type of this module.
typeText (STRING): SES type descriptor text for this module.
ModuleNumber (INT): Element number of this module: either 1 for Module A or 2 for Module B.
infoMsg (STRING): Generic SES information.

ses.status.ModuleWarn

Severity

ALERT

Description

This message occurs when the reporting disk shelf detects a warning condition in the indicated disk shelf module.

Corrective Action

Verify that the shelf module is fully seated and secure. If the problem persists, replace the disk shelf module.

Syslog Message

%s %s warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
moduleType (STRING): Type of this module.
typeText (STRING): SES type descriptor text for this module.
moduleNumber (INT): Element number of this module: either 1 for Module A or 2 for Module B.
warningMsg (STRING): Generic SES warning.
warnText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.powerCrestError

Severity

ALERT

Description

This message occurs when the system detects a failure in the Power Crest Factor Monitor for a disk shelf PSU. The Power Crest Factor Monitor will detect issues with the disk shelf power supply unit (PSU).

Corrective Action

If an abnormal power crest factor is indicated, replace the corresponding PSU.

Syslog Message

%s Power Crest Factor Monitor error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the PSU on the disk shelf.

ses.status.powerCrestInfo

Severity

INFORMATIONAL

Description

This message occurs when a previously reported Power Crest Factor Monitor problem of a disk shelf is corrected, or when the system is reporting information about the Power Crest Factor Monitor that does not necessarily require customer action.

Corrective Action

(None).

Syslog Message

%s Power Crest Factor Monitor information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
infoMsg (STRING): Generic SES information.

ses.status.powerCrestWarn

Severity

ERROR

Description

This message occurs when the system detects a non-fatal condition in the Power Crest Factor Monitor of a power supply unit (PSU) of a disk shelf.

Corrective Action

Replace the PSU of the disk shelf.

Syslog Message

%s Power Crest Factor Monitor warning for %s %d: %s. %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
warningMsg (STRING): Generic SES warning.
warningText (STRING): Exact wording of the warning.
locationText (STRING): Location of the PSU on the disk shelf.

ses.status.procCplxError

Severity

ALERT

Description

This message occurs when the system detects a failure in the Processor Complex. The Processor Complex is the set of electronic hardware, including the CPU, memory, and so on, that runs ONTAP® software.

Corrective Action

If insufficient power or abnormal voltage is indicated, check the power supply configuration; otherwise, replace the module. In some disk shelf types, this function is integrated into the SAS interface modules.

Syslog Message

%s Processor Complex error for %s %d: %s %s %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this element.
electrNumber (INT): SES element number of this element.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.procCplxInfo

Severity

INFORMATIONAL

Description

This message occurs when a previously reported Processor Complex problem is corrected, or when the system is reporting information about the Processor Complex that does not necessarily require customer action. The Processor Complex is the set of electronic hardware, including the CPU, memory, and so on, that runs ONTAP® software.

Corrective Action

(None).

Syslog Message

%s Processor Complex information for %s %d: %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **typeText** (STRING): SES type descriptor text for this element.
> **electrNumber** (INT): SES element number of this element.
> **infoMsg** (STRING): Generic SES information.

ses.status.procCplxWarn

Severity

> ERROR

Description

> This message occurs when the system detects a non-fatal condition in the Processor Complex. The Processor Complex is the set of electronic hardware, including the CPU, memory, and so on, that runs ONTAP® software.

Corrective Action

> Replace the module. In some disk shelf types, this function is integrated into the SAS interface modules.

Syslog Message

> %s Processor Complex warning for %s %d: %s. %s %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **typeText** (STRING): SES type descriptor text for this element.
> **electrNumber** (INT): SES element number of this element.
> **warningMsg** (STRING): Generic SES warning.
> **warningText** (STRING): Exact wording of the warning.
> **locationText** (STRING): Location of the module on the disk shelf.

ses.status.psError

Severity

> ALERT

Description

> This message occurs when a critical condition is detected in the indicated storage shelf power supply. The power supply might fail.

Corrective Action

> Verify that input power to the shelf is working correctly. If separate events of this type are reported simultaneously, then the common power distribution point might be at fault. Make sure that the shelf power cords are fully inserted and secured, the supply is fully seated and secured, and the supply is switched on. Verify that power supply fans, if any, are functioning. If the problem persists, replace the power supply. If the problem still persists, contact NetApp technical support.

Syslog Message

> %s power error for %s %d: %s%s. %s.

Parameters

> **prodChannel** (STRING): Disk shelf identity (channel, product, and shelf number).
> **typeText** (STRING): SES type descriptor text for this power supply.

psNumber (INT): SES element number of the failing power supply.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact description of the error.
locationText (STRING): Location of the module on the disk shelf.

ses.status.psInfo

Severity

INFORMATIONAL

Description

This message occurs when a condition previously reported about the disk shelf power supply has been corrected or when other information about the power supply that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s power supply information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this supply.
psNumber (INT): SES element number of the reporting supply.
infoMsg (STRING): Generic SES information.

ses.status.psWarning

Severity

ERROR

Description

This message occurs when a warning condition has been detected in the indicated storage shelf power supply. The power supply might be able to continue operation.

Corrective Action

Verify that the disk shelf is receiving power. If separate events of this type are reported simultaneously, then the common power distribution point might be at fault. Make sure that the disk shelf power cords are fully inserted and secured, the supply is fully seated and secured, and the supply is switched on. If the problem persists, replace the power supply. If the problem still persists, contact NetApp technical support.

Syslog Message

%s power warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this supply.
psNumber (INT): SES element number of the erring supply.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.shelfCount.info

Severity

NOTICE

Description

This message occurs when the shelf count changes due to shelf removal, insertion or the controller was rebooted.

Corrective Action

(None).

Syslog Message

The new shelf count is %d, the old shelf count was %d.

Parameters

currentShelfCount (INT): New shelf count.
oldShelfCount (INT): Previous shelf count.

ses.status.temperatureError

Severity

ERROR

Description

This message occurs when the indicated disk shelf temperature sensor reports a temperature that exceeds the specifications for the disk shelf or its components.

Corrective Action

Verify that the ambient temperature where the shelf is installed is within NetApp equipment specifications using the "storage shelf show" command and that airflow clearances are maintained. If the same disk shelf also reports fan or fan module failures, correct that problem now. If the problem is reported by the ambient temperature sensor (located on the operator panel), verify that the connection between the disk shelf and the panel is secure, if possible. If the problem persists, and if the shelf has multiple temperature sensors of which only one exhibits the problem, replace the module that contains the sensor that reports the error. If problem still persists, contact NetApp technical support for assistance. The temperature thresholds for each shelf can be displayed by using the "storage shelf show" command. command.

Syslog Message

%s temperature error for %s %d: %s%s. Current temperature: %s C (%s F). %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this sensor.
thermNumber (INT): SES element number of this sensor.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the error.
currentCTemp (STRING): Temperature reported by the sensor, in Celsius, if available.
currentFTemp (STRING): Temperature reported by the sensor, in Fahrenheit, if available.
locationText (STRING): Location of the module on the disk shelf.

ses.status.temperatureInfo

Severity

INFORMATIONAL

Description

This message occurs when an error or warning condition previously reported by or about the disk shelf temperature sensor has been corrected or when other information about the temperature in the disk shelf that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s temperature information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this sensor.
thermNumber (INT): SES element number of this sensor.
infoMsg (STRING): Generic SES information.

ses.status.temperatureWarning

Severity

ALERT

Description

This message occurs when the indicated disk shelf temperature sensor reports a temperature that is close to exceeding the specifications for the disk shelf or its components.

Corrective Action

Verify that the ambient temperature where the disk shelf is installed is within NetApp equipment specifications by using the "storage shelf show" command, and that airflow clearances are maintained. If this disk shelf also reports fan or fan module errors or warnings, correct those problems now. If the problem persists, and the shelf has multiple temperature sensors of which only one exhibits the problem, replace the module that contains the sensor. If the problem persists, contact NetApp technical support for assistance. The temperature thresholds for each shelf can also be displayed by using the "storage shelf show" command.

Syslog Message

%s temperature warning for %s %d: %s%s. Current temperature: %s C (%s F). %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this sensor.
thermNumber (INT): SES element number of this sensor.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
currentCTemp (STRING): Temperature reported by the sensor, in Celsius, if available.
currentFTemp (STRING): Temperature reported by the sensor, in Fahrenheit, if available.
locationText (STRING): Location of the module on the disk shelf.

ses.status.upsError

Severity

ALERT

Description

This message occurs when the disk shelf has detected a failure in the uninterruptible power supply (UPS) attached to it. This might occur, for example, if power to the UPS has been lost.

Corrective Action

Restore power to the UPS. Verify that the connection from the UPS to the disk shelf is in place and secured, and that the UPS is enabled. If the problem persists, contact NetApp technical support.

Syslog Message

%s uninterruptible power error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this UPS
upsNumber (INT): SES element number of the UPS
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the error.
locationText (STRING): Location of the module on the disk shelf.

ses.status.upsInfo

Severity

INFORMATIONAL

Description

This message occurs when a condition previously reported about the uninterruptible power supply (UPS) attached to the disk shelf has been corrected or when other information about the UPS that does not necessarily require customer action is reported.

Corrective Action

(None).

Syslog Message

%s uninterruptible power information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this UPS.
upsNumber (INT): SES element number of the reporting UPS.
infoMsg (STRING): Generic SES information.

ses.status.upsWarning

Severity

ALERT

Description

This message occurs when the disk shelf has detected a warning condition in the uninterruptible power supply (UPS) attached to it. This might occur, for example, if power to the UPS has been lost.

Corrective Action

Restore power to the UPS. Verify that the connection from the UPS to the disk shelf is attached and secured, and that the UPS is enabled. If the problem persists, contact NetApp technical support.

Syslog Message

%s uninterruptible power warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and shelf number).
typeText (STRING): SES type descriptor text for this UPS.
upsNumber (INT): SES element number of the UPS.
errorMsg (STRING): Generic SES error.
errorText (STRING): Exact wording of the warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.volError

Severity

EMERGENCY

Description

This message occurs when a critical condition is detected in the indicated disk shelf voltage sensor. The disk shelf might be able to continue operation.

Corrective Action

Verify that the power supply unit (PSU) and the AC line are supplying power. Monitor the power grid for abnormalities. If all seems to be normal, replace the PSU. If the problem persists, contact technical support.

Syslog Message

%s voltage error for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this power supply.
psNumber (INT): SES element number of the power supply.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the exact warning.
locationText (STRING): Location of the module on the disk shelf.

ses.status.volInfo

Severity

INFORMATIONAL

Description

This message occurs when an error or warning condition previously reported by or about the disk shelf voltage sensor is corrected, or the system reports other information about the voltage in the disk shelf that does not necessarily require customer action.

Corrective Action

(None).

Syslog Message

%s voltage information for %s %d: %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for this sensor.
sensorNumber (INT): SES element number of the reporting sensor.
infoMsg (STRING): Generic SES information.

ses.status.volWarning

Severity

ERROR

Description

This message occurs when a warning condition is detected in the indicated disk shelf voltage sensor. The shelf might be able to continue operation.

Corrective Action

Verify that the power supply and the AC line are supplying power. Monitor the power grid for abnormalities. If all seems to be normal, replace the power supply. If the problem persists, contact NetApp technical support.

Syslog Message

%s voltage warning for %s %d: %s%s. %s.

Parameters

prodChannel (STRING): Disk shelf identity (channel, product, and disk shelf number).
typeText (STRING): SCSI Enclosure Services (SES) type descriptor text for the power supply.
psNumber (INT): SES element number of the power supply.
errorMsg (STRING): Generic SES error.
errorText (STRING): Description of the exact warning.
locationText (STRING): Location of the module on the disk shelf.

ses.system events

ses.system.em.mmErr

Severity

EMERGENCY

Description

This message occurs when ONTAP® software does not support internal disk drives in this platform.

Corrective Action

Check with NetApp technical support whether the combination of this platform type with internal disks is sopported on a later version of ONTAP. If so, upgrade to the appropriate ONTAP version.

Syslog Message

Disk shelf %d containing a %.8s system with internal drives (product ID %.16s) is not a supported combination.

Parameters

ShelfID (INT): ID of the disk shelf.
VendorID (STRING): Vendor ID of the disk shelf.
ProductID (STRING): Product ID of the disk shelf.

ses.unsupported events

ses.unsupported.shelf.psu

Severity

EMERGENCY

Description

This message occurs when a disk shelf has one unsupported power supply unit installed in it. The unsupported power fits correctly in the shelf, but its functional characteristics are incompatible with the supported power supply.

Corrective Action

Replace all unsupported power supplies immediately. Use the "storage shelf show -psu-part-number" command to locate all unsupported power supplies on the disk shelf, using the part number provided in the message as the required command parameter. Contact NetApp technical support for assistance and part number for replacement power supplies.

Syslog Message

Shelf id %d serial number %s Part number %s not supported on Product ID %s. %s: power supply %d. %s.

Parameters

ShelfId (INT): ID of the disk shelf.
serialNumber (STRING): Serial number of the storage shelf enclosure.
partNumber (STRING): Part number of the unsupported power supply.
ProdId (STRING): Product identification of the shelf with the unsupported power supply.
prodChannel (STRING): Disk shelf identity (channel and shelf number).
psNumber (INT): SES element number of the failing power supply.
locationText (STRING): Location of the unsupported power supply on the disk shelf.

ses.unsupported.shelf.psus

Severity

ERROR

Description

This message occurs when a shelf has one or more unsupported power supplies installed in it. The unsupported power fits correctly in the shelf, but its functional characteristics are incompatible with the supported power supply.

Corrective Action

Replace all unsupported power supplies immediately. Use the "storage shelf show -fields psu-part-number" command to and locate all unsupported power supplies on the disk shelf. Unsupported power supplies can be identified by the part number provided in the message. Contact NetApp technical support for assistance and part number for replacement power supplies.

Syslog Message

Part number %s not supported on Product ID %s. %s: %d unsupported power supplies.

Parameters

partNumber (STRING): Part number of the unsupported power supply.
ProdId (STRING): Product identification of the shelf with unsupported power supply.
prodChannel (STRING): Disk shelf identity (channel and shelf number).
psCount (INT): Number of unsupported power supplies on the shelf.

ses.unsupported.shelves.psus

Severity

EMERGENCY

Description

This message occurs when two or more shelves have unsupported power supply installed in it. The unsupported power fits correctly in the shelf, but its functional characteristics are incompatible with the supported power supply.

Corrective Action

Replace all unsupported power supplies immediately. Use the "storage shelf show -fields psu-part-number" command to locate all unsupported power supplies on the disk shelf. Unsupported power supplies can be identified by the part number provided in the message. Contact NetApp technical support for assistance and part number for replacement power supplies.

Syslog Message

Part number %s not supported on Product ID %s. %s and other shelves: %d unsupported power supplies.

Parameters

partNumber (STRING): Part number of the unsupported power supply.
ProdId (STRING): Product identification of the shelf with unsupported power supply.
prodChannel (STRING): Disk shelf identity (channel and shelf number).
psCount (INT): Number of unsupported power supplies on the shelf.

sfo events

sfo.aggr events

sfo.aggr.relocated.cu

Severity

INFORMATIONAL

Description

This message occurs when a storage failover aggregate is relocated from one node to another during a nondisruptive controller upgrade.

Corrective Action

(None).

Syslog Message

Aggregate %s was relocated from source node %s to destination node %s in %llu milliseconds during a nondisruptive controller upgrade. The source node has system ID %llu and the destination node has system ID %llu.

Parameters

aggr_name (STRING): Name of the aggregate that was relocated.
src_name (STRING): Name of the source node.
dest_name (STRING): Name of the destination node.
time (LONGINT): Time, in milliseconds, taken to relocate the aggregate.
src_system_id (LONGINT): System ID of the source node.
dest_system_id (LONGINT): System ID of the destination node.

sfo.aggr.relocated.perm

Severity

INFORMATIONAL

Description

This message occurs when an SFO aggregate is "permanently" relocated from one node to another. However, even though the aggregate relocation is considered "permanent," you can still reverse or undo it.

Corrective Action

(None).

Syslog Message

Aggregate %s was permanently relocated from source node %s to destination node %s.

Parameters

aggr_name (STRING): Name of the SFO aggregate that was relocated.
src_name (STRING): Name of the source node.
dest_name (STRING): Name of the destination node.
time (LONGINT): Time, in milliseconds, taken to relocate the aggregate.

sfo.aggr.relocated.temp

Severity

INFORMATIONAL

Description

This message occurs when a storage failover aggregate is temporarily relocated from one node to another. This usually happens when the aggregate is relocated during a performance optimized negotiated takeover.

Corrective Action

(None).

Syslog Message

Aggregate %s was temporarily relocated from source node %s to destination node %s in %llu milliseconds.

Parameters

aggr_name (STRING): Name of the aggregate that was relocated.
src_name (STRING): Name of the source node.
dest_name (STRING): Name of the destination node.
time (LONGINT): Time, in milliseconds, taken to relocate the aggregate.

sfo.arl events

sfo.arl.gb.failed.conversion

Severity

ERROR

Description

This message occurs when ARL/giveback of the Storage Failover (SFO) aggregate fails because of active volume conversion operations against one or more volumes on this aggregate while acquiring the RAID lock.

Corrective Action

When volume conversion is complete, re-run the command 'storage failover takeover/giveback'.

Syslog Message

%s %s.

Parameters

msg (STRING): Error that prevented ARL/GB.
aggr (STRING): Name of the aggregate that was not TO/GB.

sfo.arl.notAllowed

Severity

NOTICE

Description

This message occurs when a requested Storage Failover (SFO) aggregate relocation operation is refused because the destination node is not the high-availability (HA) partner of the source node.

Corrective Action

Verify that the destination node of the aggregate relocation is the source node's high-availability (HA) partner by using the "storage failover show" command. Retry the aggregate relocation with the correct source and destination node.

Syslog Message

SFO aggregate relocation refused for aggregate %s because the destination is not an HA partner. Source node: %s (NVRAM ID: %llu), destination node: %s (NVRAM ID: %llu).

Parameters

aggr_name (STRING): Name of the aggregate.
src_name (STRING): Name of the source node.
src_nvram_id (LONGINT): NVRAM ID of the source node.
dest_name (STRING): Name of the destination node.
dest_nvram_id (LONGINT): NVRAM ID of the destination node.

sfo.arl.recvdBadSignal

Severity

INFORMATIONAL

Description

This message occurs when the aggregate relocation worker thread receives an unexpected signal from the kernel subsystem.

Corrective Action

(None).

Syslog Message

(None).

Parameters

signal_info (STRING): Additional information on the signal received, indicating if it was a bad message type or a bad signal mask.
signal_value (INT): Value of the unexpected signal.

sfo.giveback events

sfo.giveback.aborted.bdfu

Severity

ERROR

Description

This message occurs when giveback of storage failover (SFO) aggregates is aborted because the background disk firmware update either on the source node or destination node took more than 120 seconds to finish.

Corrective Action

Rerun the "storage failover giveback" command.

Giveback is aborted: %s took more than 120 seconds to finish the background disk firmware update.

Parameters

nodename (STRING): Node where the background firmware update took more than 120 seconds to finish.

sfo.giveback.aggregatesAbort

Severity

INFORMATIONAL

Description

This message occurs when a giveback of non-root aggregates is aborted by either another takeover or other conflicting operation.

Corrective Action

(None).

Syslog Message

Giveback of non-root aggregates to node %s was aborted due to another takeover or other conflicting operation. "override-vetoes" was set to %s, "require-partner-waiting" was set to %s, and "only_newly_acquired" was set to %s.

Parameters

partnerName (STRING): Partner name.
override_vetoes (STRING): Flag that indicates whether the system overrides veto checks during a giveback operation. This flag corresponds to the "-override-vetoes" parameter of the "storage failover giveback" command. When set to true, it might result in some veto checks made by subsystems on the source node getting overridden.
require_partner_waiting (STRING): Flag that indicates whether, during a giveback, the storage is given back regardless of whether the partner node is available to take back the storage. This flag corresponds to the "-require-partner-waiting" parameter of the "storage failover giveback" command. When set to true, it might result in the giveback proceeding even if the destination node is not ready to receive the aggregate being migrated.
only_newly_acquired (STRING): Flag that indicates whether, during a giveback, only aggregates acquired during the last takeover will be given back.

sfo.giveback.attemptExceeded

Severity

ALERT

Description

This message occurs when the number of attempts for automatic giveback of storage failover (SFO) aggregates exceeds the maximum allowed.

Corrective Action

Use the "storage failover show-giveback" command to identify the subsystems that failed the giveback. Follow the corrective action specified in the EMS message displayed by those subsystems. For ASA r2, use the "storage failover show" command instead of the "storage failover show-giveback" command. Then retry giveback by using the "storage failover giveback" command.

Syslog Message

Attempts for automatic giveback of SFO aggregates exceeded the maximum number (%d) of allowed attempts.

Parameters

attempts (INT): Maximum number of automatic giveback attempts allowed.

sfo.giveback.complete

Severity

INFORMATIONAL

Description

This message occurs when a giveback of storage failover (SFO) aggregates to the SFO partner controller finishes.

Corrective Action

(None).

Syslog Message

Giveback of SFO aggregates to partner (%s) is complete. override-vetoes: %s, require-partner-waiting: %s, and only_newly_acquired: %s.

Parameters

partnerName (STRING): Partner's name.
override_vetoes (STRING): Flag that indicates whether the system overrides vetoes during a giveback operation. This flag corresponds to the "-override-vetoes" parameter of the "storage failover giveback" command. When set to true, it might result in some veto checks made by subsystems on the source node getting overridden.
require_partner_waiting (STRING): Flag that indicates whether, during a giveback, the storage is given back regardless of whether the partner node is available to take back the storage or not. This flag corresponds to the "-require-partner-waiting" parameter of the "storage failover giveback" command. When set to true, it might result in the giveback proceeding even if the destination node is not ready to receive the aggregate being migrated.
only_newly_acquired (STRING): Flag that indicates whether, during a giveback, only aggregates acquired during the last takeover will be given back.

sfo.giveback.delayed.bdfu

Severity

INFORMATIONAL

Description

This message occurs when giveback of storage failover (SFO) aggregates is delayed because a background disk firmware update is in progress either on the source node or destination node. If the update does not finish within 120 seconds, giveback will be aborted.

Corrective Action

(None).

Syslog Message

(None).

Parameters

nodename (STRING): Node where the background firmware update is in progress.

sfo.giveback.failed

Severity

ALERT

Description

This message occurs when giveback of the partner's Storage Failover (SFO) aggregate fails.

Corrective Action

Other error messages indicate the exact cause of failure along with the corrective action.

Syslog Message

Giveback of aggregate %s failed due to %s.

Parameters

aggr (STRING): Name of the aggregate that was not given back.
msg (STRING): Error that prevented giveback.

sfo.giveback.OpFailed

Severity

ALERT

Description

This message occurs when the Storage Failover (SFO) phase of giveback fails.

Corrective Action

Refer to other generated error messages to identify the exact cause of failure and the corrective action.

Syslog Message

SFO phase of giveback failed by node %s because %s.

Parameters

node (STRING): Name of the node that failed giveback.
msg (STRING): Error that prevented giveback.

sfo.giveback.postMigrNotOk

Severity

ALERT

Description

This message occurs when the specified subsystem encounters an error during the post-migration phase of the giveback operation.

Corrective Action

Check the event log for a subsystem-specific reason as to why the subsystem failed the post-migration phase of the giveback operation. The corrective action is subsystem-specific and is detailed in the corrective action portion of the message. Follow the corrective action specified by that message.

Syslog Message

The giveback operation of '%s' encountered an error during post-migration processing. The error was encountered by the subsystem '%s'.

Parameters

aggr (STRING): Name of the aggregate on which the subsystem attempted the giveback operation.
subsystem (STRING): Name of the subsystem that failed the post-migration phase of the giveback operation.

sfo.giveback.spares.failed

Severity

ALERT

Description

This message occurs when giveback of the partner's storage failover (SFO) spares fails.

Corrective Action

Try the SFO giveback again.

Syslog Message

Giveback of spares failed due to %s.

Parameters

msg (STRING): Error that prevented giveback of SFO spares.

sfo.ignoretakeover events

sfo.ignoretakeover.envVarClearFailed

Severity

ERROR

Description

This message occurs when the environment indicating that mailbox takeover state should be rewritten could not be removed.

Corrective Action

Boot into the firmware monitor and remove the ign-tkover environment variable.

Syslog Message

Mailbox takeover state rewritten due to previous bringhome operation.

Parameters

(None).

sfo.ignoretakeover.rewritingMailbox

Severity

INFORMATIONAL

Description

This message occurs when mailbox takeover state is rewritten due to a previous bringhome operation.

Corrective Action

None.

Syslog Message

Mailbox takeover state rewritten due to previous bringhome operation.

Parameters

(None).

sfo.partialgiveback events

sfo.PartialGiveback

Severity

INFORMATIONAL

Description

This message occurs when a node is in partial giveback state because only some aggregates were given back during the giveback operation.

Corrective Action

Use the "storage failover show-giveback" command to check the giveback status of the aggregates. This command displays the cause of giveback failure and suggests corrective actions. For ASA r2, use the "storage failover show" command instead of the "storage failover show-giveback" command. Then retry giveback by using the "storage failover giveback" command. the "storage failover giveback" command.

Syslog Message

Node is in partial giveback state.

Parameters

(None).

sfo.reassignfailed events

sfo.reassignFailed

Severity

EMERGENCY

Description

This message occurs during the Storage Failover takeover process, when the disks from the failed node cannot be reassigned due to the failure listed. Access to the failed node's volumes will be unavailable until

this situation is fixed.

Corrective Action

Use the "storage disk show -owner" command to verify that the surviving node can access the failed node's disks. Use the "storage disk show -owner" command to verify that the node can access the partner disks. Investigate and remedy the error listed. Use the "storage failover takeover" command to retry the takeover.

Syslog Message

The takeover disk reassignment failed due to %s.

Parameters

msg (STRING): Information about the error that prevented the reassignment.

sfo.reassignnopartner events

sfo.reassignNoPartner

Severity

ERROR

Description

This message occurs during the Storage Failover takeover process, when the disks from the failed node cannot be reassigned because they are unaccessible to the surviving node. Access to the failed node's volumes will be unavailable until this situation is fixed.

Corrective Action

Use the "storage disk show -owner" command to verify that the surviving node can access the failed node's disks. If the disks are still unavailable, check cabling and connectivity to the partner disks. If the disks are available, use the "storage failover takeover" command to reinitiate the takeover. Use the "storage disk show -owner" command to verify that the node can access the partner disks. When the node can access the partner disks, use the "storage failover takeover" command.

Syslog Message

The takeover disk reassignment failed because the partner disks were not accessible.

Parameters

(None).

sfo.retry events

sfo.retry.autoGiveback

Severity

INFORMATIONAL

Description

This message occurs when automatic giveback of one or more SFO aggregates fails. Giveback of these SFO aggregates will be retried after the specified time.

Corrective Action

(None).

Syslog Message

Automatic giveback of SFO aggregates will be retried after %d minutes.

Parameters

minutes (INT): Time until giveback is retried, in minutes.

sfo.retrying events

sfo.retrying.autoGiveback

Severity

INFORMATIONAL

Description

This message occurs when automatic giveback of SFO aggregates is retried.

Corrective Action

(None).

Syslog Message

Automatic giveback of SFO aggregates is being retried.

Parameters

(None).

sfo.sendhome events

sfo.sendhome.NoPartnerDisks

Severity

INFORMATIONAL

Description

This message occurs when the giveback request fails because there are no disks that belong to the partner.

Corrective Action

Use the "storage disk show" command to validate that home information is set correctly on the disks that should belong to the partner.

Syslog Message

Giveback request failed because there are no disks to return to the partner.

Parameters

(None).

sfo.sendhome.partnerNoBoot

Severity

ERROR

Description

This message occurs when the Storage Failover giveback process cannot proceed because the partner node did not boot successfully after its root aggregate was sent home. Volumes in the root aggregate are unavailable until you remedy this situation. Other aggregates belonging to the partner remain assigned to this node until you run another "storage failover giveback" command following a successful boot of the partner node.

Corrective Action

Look at the partner logs and console output to determine why the node is not booting. Fix the problem, and then reboot the node. After the partner node boots successfully, run the "storage failover giveback" command again to return the remaining aggregates.

Syslog Message

The giveback terminated because the partner node (%s) did not boot successfully.

Parameters

partner_name (STRING): Name of the partner node.

sfo.sendhome.subsystemAbort

Severity

ALERT

Description

This message occurs when the specified subsystem aborts the Storage Failover giveback operation for the aggregate.

Corrective Action

Check the syslog/EMS output for a subsystem-specific reason for aborting the giveback operation. The corrective action is subsystem-specific and is detailed in the corrective action portion of the message. Follow the corrective action specified by the subsystem and then reissue the 'giveback' command. If you cannot perform the corrective action, then use the 'override-vetoes' option in the 'giveback' command to force the giveback.

Syslog Message

The giveback operation of '%s' was aborted by '%s'.

Parameters

aggr (STRING): Name of the aggregate on which the subsystem attempted the giveback operation.
subsystem (STRING): Name of the subsystem that aborted the giveback operation.

sfo.takenover events

sfo.takenOver.aborted

Severity

ERROR

Description

This message occurs when an attempted optimized negotiated takeover is aborted by the node about to be taken over.

Corrective Action

1. Use the "storage failover show" command to verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local and partner nodes are up. If they are not up, correct any network issues that could be preventing it. 3. Check whether any operation is running on the partner that might have slowed it down. If so, either abort the operation or wait until it is over. 4. (Optional) Use the "-bypass-optimization" parameter in the "storage failover takeover" command to bypass the optimized takeover by the partner node. 5. Use the "storage aggregate plex show" command to check mirror degraded aggregates, if the remote plex is offline, bring it online using the "storage aggregate plex online" command.

Syslog Message

The local node has aborted an optimized negotiated takeover that was initiated by the partner. Reason: %s

Parameters

reason (STRING): Reason for the failure, which might be as follows: 1. Conflicting takeover/giveback/relocation operation. 2. High-availability (HA) partner not being eligible for takeover. 3. Communication failure with the partner over the cluster network. 4. Local node has mirror degraded aggregates with remote plex inactive or unmirrored aggregates.

sfo.takenOver.commFailed

Severity

ALERT

Description

This message occurs when the local node cannot communicate over the cluster network with its high-availability (HA) partner during an optimized negotiated takeover initiated by the HA partner node.

Corrective Action

1. Use the "storage failover show" command to verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local and partner nodes are up. If they are not up, address any network issues that could be preventing it. 3. (Optional) Use the "-bypass-optimization" parameter in the "storage failover takeover" command to bypass the optimized takeover by the partner node.

Syslog Message

The local node could not communicate with its HA partner, %s, (partner's D-blade ID: %s) during an optimized negotiated takeover initiated by the partner node. The communication request returned a status of %d. The level %d returned a status of %lld.

Parameters

partner_name (STRING): Name of the partner node.
partner_dbladeid (STRING): D-blade ID of the partner node.
status (INT): Status returned by the hamsg message layer.
scope (INT): Specific module level where the message did not succeed.

scope_status (LONGINT): Module-level specific reason the message did not succeed.

sfo.takenOver.relocDone

Severity
INFORMATIONAL

Description
This message occurs during optimized negotiated takeover, when the high-availability (HA) partner notifies the local node that it has completed the relocation of all aggregates to the local node.

Corrective Action
(None).

Syslog Message
(None).

Parameters
partner_name (STRING): Name of the partner node.
partner_sysid (LONGINT): System ID of the partner node.
relocation_status (INT): Status of the "relocation done" response received from the HA partner.

sfo.takeover events

sfo.takeover.aborted

Severity
ERROR

Description
This message occurs when the taking over node cannot complete an attempted optimized negotiated takeover. Any data LIFs that were migrated as part of the failed takeover operation will not be auto-reverted back.

Corrective Action
1. Use the "storage failover show" command to verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local and partner nodes are up. If they are not up, correct any network issues that could be preventing it. 3. Check whether any operation is running on the partner that might have slowed it down. If so, either abort the operation or wait until it is over. 4. (Optional) Use the "-bypass-optimization" parameter in the "storage failover takeover" command to bypass the optimized takeover by the local node.

Syslog Message
An optimized negotiated takeover of the HA partner node by the local node has been aborted. Reason: %s

Parameters
reason (STRING): Reason for the failure, which might be as follows: 1. Conflicting takeover/giveback/relocation operation. 2. High-availability (HA) partner not being eligible for takeover. 3. Communication failure with the partner over the cluster network.

sfo.takeover.aggrProcessTime

Severity

NOTICE

Description

This message occurs during the planned negotiated takeover of an aggregate, to indicate the time taken by a particular process during that takeover.

Corrective Action

(None).

Syslog Message

Time taken for '%s' during takeover of the aggregate '%s' was %llu milliseconds.

Parameters

process (STRING): Description of the process.
aggr (STRING): Name of the aggregate being taken over.
time (LONGINT): Time taken by the specified process in milliseconds.

sfo.takeover.aggrSubsysTime

Severity

NOTICE

Description

This message occurs during the planned negotiated takeover of an aggregate, to indicate the time taken by a subsystem to perform a particular process during that takeover.

Corrective Action

(None).

Syslog Message

Subsystem %s took %llu milliseconds to complete %s during planned negotiated takeover of the aggregate %s.

Parameters

subsystem (STRING): Name of the subsystem performing the takeover operation.
time (LONGINT): Time taken by the subsystem, in milliseconds, to complete the specified process.
process (STRING): Description of the process.
aggr (STRING): Name of the aggregate being taken over.

sfo.takeover.bypassed

Severity

INFORMATIONAL

Description

This message occurs when a negotiated takeover bypasses the negotiated takeover optimization.

Corrective Action

(None).

Syslog Message

Negotiated takeover of node %s with system-ID %u has bypassed the negotiated takeover optimization. Reason: %s

Parameters

partner_name (STRING): Name of the partner node.
partner_sysid (LONGINT): System ID of the partner node.
reason (STRING): Reason that negotiated takeover optimization was bypassed.

sfo.takeover.commExpired

Severity

ERROR

Description

This message occurs during optimized negotiated takeover, when the local node does not receive a response within a designated time period, while communicating over the cluster network with its high-availability (HA) partner.

Corrective Action

1. Check whether any operation is running on the partner node that might have slowed it down, such as another aggregate relocation. Also check for conflicting operations, such as another takeover, giveback, or shutdown. If so, either abort the operation or wait until it is over. 2. (Optional) Use the "-bypass-optimization" parameter in the "storage failover takeover" command to bypass the optimized takeover by the local node.

Syslog Message

The local node timed out while waiting for a response from its HA partner, %s, over the cluster network.

Parameters

partner_name (STRING): Name of the partner node.
partner_dbladeid (STRING): D-blade ID of the partner node.

sfo.takeover.commFailed

Severity

ALERT

Description

This message occurs when the local node cannot communicate over the cluster network with its high-availability (HA) partner during an optimized negotiated takeover initiated by the local node.

Corrective Action

1. Use the "storage failover show" command to verify that the partner node is up. 2. Use the "network interface show" command to verify that the cluster network interfaces on the local and partner nodes are up. If they are not up, address any network issues that could be preventing it. 3. (Optional) Use the "-bypass-optimization" parameter in the "storage failover takeover" command to bypass the optimized takeover by the local node.

Syslog Message

The local node could not communicate with its HA partner, %s, (partner's D-blade ID: %s) during an optimized negotiated takeover initiated by the local node. The communication request returned a status of %d. The level %d returned a status of %lld.

Parameters

partner_name (STRING): Name of the partner node.
partner_dbladeid (STRING): D-blade ID of the partner node.
status (INT): Status returned by the hamsg message layer.
scope (INT): Specific module level where the message did not succeed.
scope_status (LONGINT): Module-level specific reason the message did not succeed.

sfo.takeover.noAggrReloc

Severity

INFORMATIONAL

Description

This message occurs when no SFO aggregate was relocated by the high-availability (HA) partner during optimized negotiated takeover.

Corrective Action

(None).

Syslog Message

(None).

Parameters

partner_name (STRING): Name of the partner node.
partner_sysid (LONGINT): System ID of the partner node.

sfo.takeover.relocDone

Severity

INFORMATIONAL

Description

This message occurs during optimized negotiated takeover, when the local node receives a notification from its high-availability (HA) partner node stating that the partner has completed the relocation of all aggregates to the local node.

Corrective Action

(None).

Syslog Message

(None).

Parameters

partner_name (STRING): Name of the partner node.
partner_sysid (LONGINT): System ID of the partner node.
relocation_status (INT): Status of the "relocation done" response received from the HA partner.

sfo.takeover.sfoStart

Severity

INFORMATIONAL

Description

This message occurs when the node doing the takeover starts the SFO phase of the optimized negotiated takeover.

Corrective Action

(None).

Syslog Message

The local node has initiated optimized negotiated takeover of its partner (%s).

Parameters

partner_name (STRING): Name of the partner node.
partner_sysid (LONGINT): System ID of the partner node.

sfo.tkabort events

sfo.tkAbort.ca.check.failed

Severity

ERROR

Description

This message occurs when the destination node cannot contact the object stores during the planned takeover of a FabricPool aggregate.

Corrective Action

Verify that the intercluster LIF is online and functional by using the "network interface show" command. Also, check network connectivity to the object store server by using the "ping" command over the destination node intercluster LIF. Additionally, verify that the configuration of the object store has not changed, and that login and connectivity information is still accurate by using the "aggregate object-store config show" command.

Syslog Message

Planned SFO takeover of aggregate '%s' (uuid: %s) failed due to %s.

Parameters

vol (STRING): Name of the aggregate.
aggr_uuid (STRING): UUID of the aggregate.
reason (STRING): Reason for the prevention of the planned takeover operation.

sfo.tkovertoclusterwait events

sfo.tkoverToClusterwait

Severity

NOTICE

Description

This message occurs when a node whose M-host applications have not fully stabilized initiates a takeover followed by a giveback to its high-availability (HA) partner. After the giveback, this node's Failover Monitor state indicates that M-host stabilization is not yet complete.

Corrective Action

Contact NetApp technical support to diagnose the issue further.

Syslog Message

(None).

Parameters

(None).

sfu events

sfu.adaptersuspendio events

sfu.adapterSuspendIO

Severity

INFORMATIONAL

Description

This message occurs during a disk shelf firmware update on a disk shelf that cannot perform I/O while updating firmware. Typically, the shelves involved are bridge-based.

Corrective Action

I/O resumes automatically after the firmware update is complete.

Syslog Message

Suspending I/O to %s adapter %s for %d seconds while shelf firmware is updated.

Parameters

adapterType (STRING): Type of adapter that is updating firmware.
channelName (STRING): Name of the adapter on which shelves will be updating firmware.
minutes (INT): Amount of time that I/O will be suspended on the adapter.

sfu.adapterSuspendIO.ndu

Severity

INFORMATIONAL

Description

This message occurs during a disk shelf firmware update on a disk shelf that can perform I/O, but might have to suspend management requests while updating firmware. Typically, the shelves involved are DS12-ESAS, DS20-ESAS, DS4243.

Corrective Action

Suspended data traffic resumes automatically after the firmware update is complete.

Syslog Message

Suspending %s to %s adapter %s for %d seconds while shelf firmware is updated.

Parameters

dataTrafficType (STRING): Type of data traffic: SMP.
adapterType (STRING): Type of adapter that is updating firmware.
channelName (STRING): Name of the adapter on which shelves will be updating firmware.
minutes (INT): Amount of time that specified data traffic will be suspended on the adapter.

sfu.auto events

sfu.auto.update.off.impact

Severity

ERROR

Description

This message occurs when ONTAP® software cannot automatically upgrade the firmware on a disk shelf because the hidden 'shelf.fw.auto.update' option is set to off.

Corrective Action

Set the hidden option 'shelf.fw.auto.update' to "on", or update the firmware manually.

Syslog Message

Firmware could not be updated on I/O module %s with firmware version %s on %s disk shelf %s.shelf%d. Update the firmware manually.

Parameters

moduleType (STRING): I/O controller module type, for example, AT-FCX/ESH4/SAS/IOM3.
productRev (STRING): Firmware revision level.
shelfType (STRING): Disk shelf enclosure type, for example, DS14-Mk4-FC, DS14-Mk2-FC, or DS14-Mk2-AT.
channelName (STRING): Name of the adapter port or switch port of the disk shelf enclosure.
shelfId (INT): ID of the disk shelf enclosure.

sfu.badbridgeshelfconfig events

sfu.badBridgeShelfConfig

Severity

ALERT

Description

This message occurs when the disk shelf firmware update aborts because it cannot contact the two peer FC-to-SAS bridges.

Corrective Action

Make sure that the storage controller is correctly cabled to the two peer FC-to-SAS bridges and that the bridges are correctly cabled to the SAS disk shelves. Then retry the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

Firmware update aborted on disk shelf %s.shelf%d module %s. Unable to contact two peer FC-to-SAS bridges.

Parameters

channelName (STRING): Name of the adapter port or switch port of the disk shelf that aborted the firmware update.
shelfId (INT): ID of the disk shelf that aborted the firmware update.
module (STRING): Module that aborted the firmware update.

sfu.ctrllerelmntspershelf events

sfu.ctrllerElmntsPerShelf

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware download determines the number of controller elements per shelf that can be downloaded.

Corrective Action

(None).

Syslog Message

%s: %d ES controller %s can be updated on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
count (INT): Number of ES controller elements on this shelf that can be downloaded.
pluralElement (STRING): Element or Elements.
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware can be downloaded.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware can be downloaded.

sfu.download events

sfu.download.details

Deprecated

Deprecated as of ONTAP® version 9.6. A new EMS message is added.

Severity

NOTICE

Description

This message occurs when a disk shelf firmware update completes download firmware to a disk shelf or shelves in the system.

Corrective Action

Shelf firmware update will be attempted again in the next background shelf firmware update.

Syslog Message

%s: Download of firmware file %s on %s.shelf%d might not have completed on one module as %s. An attempt to download again will be done in the next cycle.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware download error occurred.

shelfId (INT): ID of the disk shelf on which the disk shelf firmware download error occurred.
ErrorReason (STRING): More information about the reason for download error.

sfu.download.done.details

Severity

NOTICE

Description

This message occurs when a shelf firmware update finishes downloading firmware to a shelf or shelves in the system.

Corrective Action

Shelf firmware update will be attempted again in the next background shelf firmware update.

Syslog Message

%s: Download of firmware file on %s.shelf%d might not have been completed on one module because %s. An attempt to download again will be done in the next cycle.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware download error occurred.
shelfId (INT): ID of the shelf on which the shelf firmware download error occurred.
ErrorReason (STRING): More information about the reason for download error.

sfu.downloadctrllerbridge events

sfu.downloadCtrllerBridge

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware download starts on a particular disk shelf.

Corrective Action

(None).

Syslog Message

%s: Downloading %s on ES controller module %s via SES device %s.%d on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
module (STRING): Either Module A or Module B, in which Module A is the upper module in the enclosure on the back side and Module B is the lower module in the enclosure on the back side.
channelNameSES (STRING): Name of the adapter port or switch port on the SES services device on which the disk shelf firmware download is occurring.
scsiId (INT): SCSI ID of the SES services device used to download disk shelf firmware.
channelNameShelf (STRING): Name of the adapter port or switch port on which the disk shelf firmware

download is occurring.

shelfId (INT): ID of the disk disk shelf on which the disk shelf firmware download is occurring.

sfu.downloaderror events

sfu.downloadError

Severity

ERROR

Description

This message occurs when a disk shelf firmware update fails to successfully download firmware to a disk shelf or shelves in the system.

Corrective Action

Redownload the latest disk shelf firmware from the NetApp Support Site at http://support.netapp.com/NOW/download/tools/diskshelf/ and attempt to download disk shelf firmware again, using the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

%s: Error downloading firmware file %s on %s.shelf%d.%s

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware download error occurred.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download. error occurred.
ErrorReason (STRING): More information about the reason for download error.

sfu.downloadingcontroller events

sfu.downloadingController

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware download starts on a specific disk shelf.

Corrective Action

(None).

Syslog Message

%s: Downloading %s on disk shelf controller module %s on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
module (STRING): Module on which the disk shelf firmware download is occurring.
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware

download is occurring.

shelfId (INT): ID of the disk shelf on which the disk shelf firmware download is occurring.

sfu.downloadingctrllerr1xx events

sfu.downloadingCtrllerR1XX

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware download starts on a particular disk shelf.

Corrective Action

(None).

Syslog Message

%s: Downloading %s on ES controller on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware download is occurring.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download is occurring.

sfu.downloadstarted events

sfu.downloadStarted

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update starts to download disk shelf firmware.

Corrective Action

(None).

Syslog Message

Update of disk shelf firmware started on %d %s.

Parameters

count (INT): Number of shelves that are starting disk shelf firmware download.
pluralShelf (STRING): Shelf or Shelves.

sfu.downloadsuccess events

sfu.downloadSuccess

Severity

INFORMATIONAL

Description

This message occurs when disk shelf firmware updates successfully.

Corrective Action

(None).

Syslog Message

%s: Firmware file %s downloaded on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
channelName (STRING): Name of the adapter port or switch port on which the shelf firmware download occurred.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download occurred.

sfu.downloadsummary events

sfu.downloadSummary

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update completes successfully.

Corrective Action

(None).

Syslog Message

Shelf firmware updated on %d %s.

Parameters

shelfCount (INT): Number of shelves that successfully updated.
pluralShelf (STRING): Shelf or Shelves.

sfu.downloadsummaryerrors events

sfu.downloadSummaryErrors

Severity

ERROR

Description

This message occurs when a disk shelf firmware update completes without successfully downloading to all shelves it attempted.

Corrective Action

Issue the (advanced privilege) "storage shelf firmware update" command again.

Syslog Message

Shelf firmware updated on %d %s, failed to update on %d %s.

Parameters

successCount (INT): Number of shelves successfully updated.
pluralShelf (STRING): Shelf or Shelves.
failedCount (INT): Number of shelves that failed to update.
pluralShelfFailed (STRING): Shelf or Shelves.

sfu.fcdownloadfailed events

sfu.FCDownloadFailed

Severity

ERROR

Description

This message occurs when a disk shelf firmware update fails to download shelf firmware to an FC or an ATA shelf successfully.

Corrective Action

Redownload the latest disk shelf firmware from the NetApp Support Site at http://support.netapp.com/NOW/ download/tools/diskshelf/ and attempt to download disk shelf firmware again by using the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

%s: Download failed on %s on ES controller module %s via SES device %s.%d on %s.shelf%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of file in /etc/shelf_fw that was being downloaded.
module (STRING): Module A is the upper module in the enclosure on the back side. Module B is the lower module in the enclosure on the back side.
channelNameSES (STRING): Name of the adapter port or switch port on the SES services device on which the disk shelf firmware download failed.
scsiId (INT): SCSI ID of the SES services device used to download disk shelf firmware.
channelNameShelf (STRING): Name of the adapter port or switch port on which the disk shelf firmware download failed.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download failed.

sfu.firmwaredownrev events

sfu.firmwareDownrev

Severity

ERROR

Description

This message occurs when disk shelf firmware is downrev and therefore cannot be updated automatically. Before updating the disk shelf firmware, always check the NetApp Support Site for the latest disk shelf firmware available: http://support.netapp.com/NOW/download/tools/diskshelf/.

Corrective Action

Copy updated disk shelf firmware into the /etc/shelf_fw directory on the storage appliance and then manually issue the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

Disk shelf firmware needs to be updated on %d disk %s.

Parameters

downrevShelves (INT): Number of shelves in the system that are downrev.
pluralShelf (STRING): Shelf or Shelves.

sfu.firmwareDownrev.shelf

Severity

ERROR

Description

This message occurs when the disk shelf is running downrev firmware, and a later version is available in the /etc/shelf_fw directory. The shelf cannot be updated automatically, possibly because automatic shelf firmware update is disabled.

Corrective Action

Use the "options shelf.fw.auto.update" command to check whether automatic shelf firmware update is off. Manually issue the (advanced privilege) "storage shelf firmware update" command if background update is disabled.

Syslog Message

Shelf %s has downrev firmware.

Parameters

ShelfId (STRING): Shelf that is running downrev firmware.

sfu.firmwareuptodate events

sfu.firmwareUpToDate

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update is requested but all shelves are determined to be updated already to the latest version of firmware available on the system. Before updating the disk shelf firmware, always check the NetApp Support Site for the latest disk shelf firmware available: http://support.netapp.com/NOW/download/tools/diskshelf/.

Corrective Action

(None).

Syslog Message

Firmware is up-to-date on all disk shelves.

Parameters

(None).

sfu.nsmdownloadfailed events

sfu.NSMDownloadFailed

Severity

ERROR

Description

This message occurs when a disk shelf firmware update fails to download disk shelf firmware to a disk shelf successfully.

Corrective Action

Go to the NetApp Support Site at http://support.netapp.com/NOW/download/tools/diskshelf/ and try downloading the disk shelf firmware again by using the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

%s: Download failed on %s on disk shelf controller module %s on disk shelf %s.%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
module (STRING): Module on which the disk shelf firmware download failed.
channelNameSES (STRING): Name of the adapter port or switch port on the SCSI enclosure services (SES) device on which the disk shelf firmware download failed.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download failed.

sfu.partnerinaccessible events

sfu.partnerInaccessible

Severity

ALERT

Description

This message occurs in a high-availability (HA) configuration in which communication between partner nodes cannot be established.

Corrective Action

Verify that the HA interconnect is operational. Retry the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

HA partner is inaccessible. Shelf firmware update canceled.

Parameters

(None).

sfu.partnernotresponding events

sfu.partnerNotResponding

Severity

ALERT

Description

This message occurs when one node in a high-availability (HA) configuration does not respond to firmware download requests from another node, in which case the other node cannot download disk shelf firmware.

Corrective Action

Make certain that the HA interconnect is up and running on both nodes of the HA pair and then attempt to re-download disk shelf firmware, using the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

Partner either responded in the negative, or did not respond in %d seconds. Aborting shelf firmware update.

Parameters

timeout (INT): Number of seconds the timeout is set for.

sfu.partnerrefusedupdate events

sfu.partnerRefusedUpdate

Severity

ALERT

Description

This message occurs in a high-availability (HA) configuration in which one node refuses firmware download requests from its partner node, in which case the partner node cannot download disk shelf firmware.

Corrective Action

Make certain that the HA partners are both running the same version of ONTAP® software and that the HA interconnect is up and running. Attempt the (advanced privilege) "storage shelf firmware update" command again.

Syslog Message

Partner node refused permission to update shelf firmware.

Parameters

(None).

sfu.partnerupdatecomplete events

sfu.partnerUpdateComplete

Severity

INFORMATIONAL

Description

This message occurs in a high-availability (HA) configuration in which an HA partner was downloading disk shelf firmware and the download was completed, at which point this notification is sent and enclosure services are resumed by the partner.

Corrective Action

(None).

Syslog Message

Partner is no longer updating disk shelf firmware. Resuming enclosure services.

Parameters

(None).

sfu.partnerupdatetimeout events

sfu.partnerUpdateTimeout

Severity

INFORMATIONAL

Description

This message occurs in a high-availability (HA) configuration in which an HA partner was downloading disk shelf firmware and the download has timed out. The system resumes enclosure services monitoring.

Corrective Action

Verify that the HA interconnect is operational and then retry the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

Waited %d minutes for partner shelf firmware update. Resuming enclosure services.

Parameters

minutes (INT): Duration of the partner update timeout, in minutes.

sfu.rebootrequest events

sfu.rebootRequest

Severity

INFORMATIONAL

Description

This message occurs when the disk shelf firmware update is complete and the disk shelf will be rebooted to run the new code.

Corrective Action

(None).

Syslog Message

Issuing a request to reboot disk shelf %s.shelf%d module %s.

Parameters

channelName (STRING): Name of the adapter port or switch port of the disk shelf to be rebooted.
shelfId (INT): ID of the disk shelf to be rebooted.
module (STRING): Module to be rebooted.

sfu.rebootrequestfailure events

sfu.rebootRequestFailure

Severity

ERROR

Description

This message occurs when an attempt to issue a reboot request after downloading disk shelf firmware fails, indicating a software error.

Corrective Action

Retry the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

Could not issue the request to reboot disk shelf %s.shelf%d module %s.

Parameters

channelName (STRING): Name of the adapter port or switch port of the disk shelf to be rebooted.
shelfId (INT): ID of the disk shelf to be rebooted.
module (STRING): Module to be rebooted.

sfu.resumediskio events

sfu.resumeDiskIO

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update is completed and disk I/O is resumed.

Corrective Action

(None).

Syslog Message

Resuming disk I/O after shelf firmware update.

Parameters

(None).

sfu.sasdownloadfailed events

sfu.SASDownloadFailed

Severity

ERROR

Description

This message occurs when a disk shelf firmware update fails to download disk shelf firmware to a disk shelf successfully.

Corrective Action

Go to the NetApp Support Site at http://support.netapp.com/NOW/download/tools/diskshelf/ and try downloading the disk shelf firmware again by using the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

%s: Download failed on %s on disk shelf controller module %s on disk shelf %s.%d.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
fileName (STRING): Name of the file in /etc/shelf_fw that was being downloaded.
module (STRING): Module on which the disk shelf firmware download failed.
channelNameSES (STRING): Name of the adapter port or switch port on the SCSI enclosure services (SES) device on which the disk shelf firmware download failed.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware download failed.

sfu.statuscheckfailure events

sfu.statusCheckFailure

Severity

ERROR

Description

This message occurs when the (advanced privilege) "storage shelf firmware update" command encounters a failure while attempting to read the status of the firmware update in progress.

Corrective Action

Retry the (advanced privilege) "storage shelf firmware update" command.

Syslog Message

%s: failed status check of f/w update on %s.shelf%d [%x] %s, retry_count = %d, %s.

Parameters

cmdName (STRING): Name of the command issued, such as "storage shelf firmware update".
channelName (STRING): Name of the adapter port or switch port on which the disk shelf firmware is to be downloaded.
shelfId (INT): ID of the disk shelf on which the disk shelf firmware is to be downloaded.
outStatusFlags (INTHEX): Output status flags value of the I/O operation (ONTAP® software internal value).
ModuleType (STRING): Module type, such as AT-FCX, AT-FC, ESH, LRC, and so on.
retryCount (INT): Number of times the status read has been retried.
DeviceStatus (STRING): Whether the SES target device status is OK or MISSING.

sfu.suspenddiskio events

sfu.suspendDiskIO

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update is started and disk I/O is suspended.

Corrective Action

(None).

Syslog Message

Suspending disk I/O to reboot shelf modules for shelf firmware update.

Parameters

(None).

sfu.suspendses events

sfu.suspendSES

Severity

INFORMATIONAL

Description

This message occurs when a disk shelf firmware update is requested in a high-availability (HA) environment. One partner node updates the firmware on the disk shelf module while the HA partner node

temporarily disables enclosure services while the firmware update is in process.

Corrective Action

(None).

Syslog Message

Suspending enclosure services—partner is updating disk shelf firmware.

Parameters

(None).

shelf events

shelf.config events

shelf.config.mixed

Severity

NOTICE

Description

This message occurs at system boot time, when a stand-alone system's storage configuration is a mixture of redundant paths and single paths.

Corrective Action

(None).

Syslog Message

System is using a mixture of single path, multi-path or quad-path storage configurations.

Parameters

(None).

shelf.config.mixedha

Severity

NOTICE

Description

This message occurs at system boot time, when an HA system's storage configuration is a mixture of redundant paths and single paths.

Corrective Action

(None).

Syslog Message

System is using a mixture of single path, multi-path or quad-path HA storage configurations.

Parameters

(None).

shelf.config.mpha

Severity

INFORMATIONAL

Description

This event is generated at the Filer boot time, when it is a HA configuration and all the storage shelf enclosures accessible by the Filer have redundant paths. This message is for informational purpose only.

Corrective Action

(None).

Syslog Message

All attached storage on the system is multi-pathed HA.

Parameters

(None).

shelf.config.multipath

Severity

INFORMATIONAL

Description

This event is generated at the Filer boot time, when it is a stand alone configuration and all the storage shelf enclosures accessible by the Filer have redundant paths. This message is for informational purpose only.

Corrective Action

(None).

Syslog Message

All attached storage on the system is multi-pathed.

Parameters

(None).

shelf.config.qpha

Severity

NOTICE

Description

This message occurs at system boot time, when an HA system's storage configuration is quad-path.

Corrective Action

(None).

Syslog Message

System storage is in a quad-path HA configuration.

Parameters

(None).

shelf.config.quadpath

Severity

NOTICE

Description

This message occurs at system boot time, when a stand-alone system's storage configuration is quad-path.

Corrective Action

(None).

Syslog Message

System storage is in a quad-path configuration.

Parameters

(None).

shelf.config.single

Severity

INFORMATIONAL

Description

This event is generated at the Filer boot time, when it is a stand alone configuration and all the storage shelf enclosures accessible by the Filer have only one active path. This message is for informational purpose only.

Corrective Action

(None).

Syslog Message

System is using single path attached storage only.

Parameters

(None).

shelf.config.spha

Severity

INFORMATIONAL

Description

This event is generated at the Filer boot time, when it is a HA configuration and all the storage shelf enclosures accessible by the Filer have only one active path. This message is for informational purpose only.

Corrective Action

(None).

Syslog Message

System is using single path HA attached storage only.

Parameters

(None).

shelf.config.tomixed

Severity

NOTICE

Description

This message occurs in a stand-alone system when the storage configuration changes from a single-path, multi-path, or quad-path configuration, to a mixed path configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to a mixture of single path, multi-path or quad-path storage configurations.

Parameters

(None).

shelf.config.tomixedha

Severity

NOTICE

Description

This message occurs in an HA system when the storage configuration changes from a single-path HA, multi-path HA, or quad-path HA configuration to a mixed path HA configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to a mixture of single, multi-path or quad-path storage configurations.

Parameters

(None).

shelf.config.tompha

Severity

INFORMATIONAL

Description

This event is generated by the periodic storage health monitor process in a HA Filer configuration, when the Filer storage configuration changes from the single path HA configuration to the multi-path HA configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to multi-path HA attached storage

Parameters

(None).

shelf.config.tomultipath

Severity

INFORMATIONAL

Description

This event is generated by the periodic storage health monitor process in a stand alone Filer configuration, when the Filer storage configuration changes from the single-path configuration to the multi path configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to multi-path attached storage

Parameters

(None).

shelf.config.toqpha

Severity

NOTICE

Description

This message occurs in an HA system when the storage configuration changes to quad-path.

Corrective Action

(None).

Syslog Message

System has transitioned to a quad-path storage configuration.

Parameters

(None).

shelf.config.toquadpath

Severity

NOTICE

Description

This message occurs in a stand-alone system. System has transitioned to a quad-path storage configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to quad-path attached storage

Parameters

(None).

shelf.config.tosingle

Severity

INFORMATIONAL

Description

This event is generated by the periodic storage health monitor process in a stand alone Filer configuration, when the Filer storage configuration changes from the multi-path configuration to the single path configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to single path attached storage

Parameters

(None).

shelf.config.tospha

Severity

INFORMATIONAL

Description

This event is generated by the periodic storage health monitor process in a HA Filer configuration, when the Filer storage configuration changes from the multi-path HA configuration to the single path HA configuration.

Corrective Action

(None).

Syslog Message

System has transitioned to single path HA attached storage

Parameters

(None).

shelf.config.toTripath

Severity

NOTICE

Description

This message occurs when a stand-alone system changes to a tri-path storage configuration.

Corrective Action

(None).

Syslog Message

System transitions to a tri-path storage configuration.

Parameters

(None).

shelf.config.toTripathHA

Severity

NOTICE

Description

This message occurs in a high-availability (HA) system when the storage configuration changes to tri-path.

Corrective Action

(None).

Syslog Message

System transitions to a tri-path HA storage configuration.

Parameters

(None).

shelf.config.tripath

Severity

NOTICE

Description

This message occurs at system boot time, when a stand-alone system's storage configuration is tri-path.

Corrective Action

(None).

Syslog Message

System storage is in a tri-path configuration.

Parameters

(None).

shelf.config.tripathHA

Severity

NOTICE

Description

This message occurs at system boot time, when a high-availability (HA) system's storage configuration is tri-path.

Corrective Action

(None).

Syslog Message

System storage is in a tri-path HA storage configuration.

Parameters

(None).

shelf.identify events

shelf.identify.start

Severity

INFORMATIONAL

Description

This message occurs when the user turns on the disk shelf's Identify mode.

Corrective Action

(None).

Syslog Message

Disk shelf %s has entered Identify mode (Shelf Attention Code: %s)

Parameters

shelfName (STRING): Disk shelf name.
panelCode (STRING): Code displayed on the disk shelf's 7-segment LED OPS panel.

shelf.identify.stop

Severity

INFORMATIONAL

Description

This message occurs when the user turns off a disk shelf's Identify mode.

Corrective Action

(None).

Syslog Message

Disk shelf %s has exited Identify mode.

Parameters

shelfName (STRING): Disk shelf name.

shelf.io events

shelf.IO.in.progress

Severity

NOTICE

Description

This message occurs when a request cannot be performed because I/O is still in progress.

Corrective Action

(None).

Syslog Message

Could not perform the request; I/O to disk shelf is still in progress.

Parameters

(None).

shelf.module events

shelf.module.configuration.failure

Severity

ERROR

Description

This message occurs when the system cannot complete the configuration of a disk shelf module with the desired parameters.

Corrective Action

Contact NetApp technical support.

Syslog Message

Could not complete the configuration of disk shelf module %s on channels %s, disk shelf ID %d.

Parameters

element (STRING): Disk shelf module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availibility partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID of the disk shelf.

shelf.module.element.missing

Severity

ALERT

Description

This message occurs when an element is missing, unused, or disconnected.

Corrective Action

Verify that both disk shelf modules are fully seated and locked in place. Also make sure that they are of the same product family.

Syslog Message

Disk shelf module %s is MISSING on channels %s disk shelf ID %d.

Parameters

element (STRING): Disk shelf module designator (A is the upper module, B is the lower module).
channels (STRING): Channels that have the error if local, PARTNER for high-availability partner, UNUSED if unconnected.
shelfID (INT): Disk shelf ID of the disk shelf reporting the error.

shelf.reset events

shelf.reset.counters

Severity

INFORMATIONAL

Description

This message occurs when ONTAP® software resets the error counters on a disk shelf module.

Corrective Action

(None).

Syslog Message

Resetting error counters for module %s in disk shelf %s.%d.

Parameters

element (STRING): Disk shelf module designator (A is the upper module, B is the lower module).
channel (STRING): Channel the disk shelf module is on.
shelfID (INT): ID of the disk shelf the module is in.

shelf.test events

shelf.test.in.progress

Severity

INFORMATIONAL

Description

This message occurs when a TEST request is now in progress.

Corrective Action

(None).

Syslog Message

Test request in progress.

Parameters

(None).

shelf.test.request.error

Severity

ERROR

Description

This message occurs when a TEST request cannot be performed because the disk shelf does not exist.

Corrective Action

Run the test against a shelf that exists.

Syslog Message

Could not perform TEST request; the disk shelf does not exist.

Parameters

(None).

shm events

shm.bypassed events

shm.bypassed.disk.fail

Deprecated

Deprecated as of Data ONTAP 9.3 because bypass code has been removed.

Severity

ERROR

Description

This message occurs when the system recommends that a disk be failed because it has been bypassed.

Corrective Action

(None).

Syslog Message

shm: Disk %s has been recommended for failure due to being bypassed by the shelf.

Parameters

diskName (STRING): Name of the disk.

shm.bypassed.disk.fail.disabled

Deprecated

Deprecated as of Data ONTAP 9.3 because bypass code has been removed.

Severity

ALERT

Description

This message occurs when three or more disks have been bypassed on a port.

Corrective Action

(None).

Syslog Message

shm: Disk bypass check has been disabled due to multiple bypassed disks on host bus adapter %s, shelf %d.

Parameters

hba (STRING): Name of the host bus adapter.
shelf (INT): Shelf ID.

shm.bypassed.disk.fail.enabled

Severity

NOTICE

Description

This message occurs when the bypass disabled state is cleared.

Corrective Action

(None).

Syslog Message

shm: Disk bypass check has been enabled for host bus adapter %s.

Parameters

hba (STRING): Name of the host bus adapter.

shm.disk events

shm.disk.lostWriteError

Severity

ERROR

Description

This message occurs when the system detects a lost write error.

Corrective Action

(None).

Syslog Message

shm: Disk %s has detected and recovered from a lost write error; the system will fail the disk if possible.

Parameters

diskName (STRING): Name of the disk.

shm.fab events

shm.fab.writeError

Severity

NOTICE

Description

This message occurs when an error is received while writing the failure bytes.

Corrective Action

(None).

Syslog Message

shm: Unable to write failure bytes to disk %s due to error %x.

Parameters

diskName (STRING): Name of the disk.
error_code (INTHEX): Error code returned.

shm.fab.writeSenseError

Severity

NOTICE

Description

This message occurs when an error is received while writing the failure bytes.

Corrective Action

(None).

Syslog Message

shm: Unable to write failure bytes to disk %s due to error %x/%x/%x/%x.

Parameters

diskName (STRING): Name of the disk.
sense_key (INTHEX): Actual sense key.
sense_code (INTHEX): Actual sense code.
qualifier (INTHEX): Actual sense code qualifier.
fru_failed (INTHEX): Actual FRU code.

shm.failurebytes events

shm.failureBytes.fullError

Severity

NOTICE

Description

This message occurs when writing the failure byte area returns an error due to being full.

Corrective Action

(None).

Syslog Message

shm: Disk %s failure area has reached capacity; to clear, reload drive firmware.

Parameters

diskName (STRING): Name of the disk.

shm.nvme events

shm.NVME.critical.warning

Severity

ERROR

Description

This message occurs when the NVMe drive returns a critical warning to the health monitor.

Corrective Action

(None).

Syslog Message

Disk %s returned a critical warning 0x%x and will be recommended for failure.

Parameters

disk_name (STRING): Name of the disk.
warning_code (INTHEX): Warning code returned.

shm.pulllogwarning events

shm.pullLogWarning

Severity

NOTICE

Description

This message occurs when the disk dongle requests the system to retrieve the error log.

Corrective Action

(None).

Syslog Message

shm: Disk %s has returned %d warnings and the log will be saved.

Parameters

diskName (STRING): Name of the disk.
count (INT): Count of warnings received.

shm.reformat events

shm.reformat.diskError

Severity

ERROR

Description

This message occurs when the system tries to reformat a disk, but an error is returned.

Corrective Action

(None).

Syslog Message

shm: Unable to format disk %s as it is not supported.

Parameters

diskName (STRING): Name of the disk.

shm.reformat.partnerDisk

Severity

NOTICE

Description

This message occurs when the system detects a drive that started formatting during a sanitization, but did not finish.

Corrective Action

Reboot the partner node to clear the formatting condition. Rerun the original sanitize operation.

Syslog Message

shm: Disk %s on the partner has possibly not completed format. To reformat the disk, the partner must be rebooted.

Parameters

diskName (STRING): Name of the disk.

shm.reformat.startMsg

Severity

NOTICE

Description

This message occurs when the system has begun to reformat a disk that was not completed during sanitization.

Corrective Action

(None).

Syslog Message

shm: Disk %s is being reformatted due to an error during disk sanitize.

Parameters

diskName (STRING): Name of the disk.

shm.ssd events

shm.ssd.threshold.ioLatency

Severity

NOTICE

Description

This message occurs when ONTAP® detects that a solid-state drive (SSD) has an average block latency during a five-minute timeframe that is greater than expected. ONTAP will continue to monitor the SSD latency and might fail the SSD if it exceeds latency thresholds.

Corrective Action

(None).

Syslog Message

SSD %s has exceeded the expected block latency in the current timeframe with an average latency of %d us and an average utilization of %d percent. The next highest SSD latency: %d us. %s

Parameters

disk_name (STRING): Name of the disk.
latency_avg (INT): Average block latency in the current timeframe in microseconds (us).
util_avg (INT): Average drive utilization percent in the current timeframe.
next_hi_latency_avg (INT): Average block latency for the SSD with the next highest block latency in the current timeframe.
disk_information (STRING): Formatted information about the disk. This includes the disk's vendor, model, firmware revision, and serial number.

shm.threshold events

shm.threshold.agrsvIOCount

Deprecated

This event is removed as it is a test message not intended for customers.

Severity

NOTICE

Description

This message occurs when the system detects a disk that exceeds the threshold count of high aggressive IO latencies.

Corrective Action

(None).

Syslog Message

Disk %s has exceeded %d IOs which have latencies greater than the threshold.

Parameters

disk_name (STRING): Name of the disk.
agrsv_IO_count (INT): Count of aggressive timeout IOs.

shm.threshold.allMediaErrors

Severity

ERROR

Description

This message occurs when the system detect more than 25 medium and/or recovered errors in a 10-minute window.

Corrective Action

(None).

Syslog Message

shm: Disk %s has crossed the combination media error threshold in a 10 minute window.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.checksumErrors

Severity

ERROR

Description

This message occurs when a disk exceeds the threshold of checksum errors on the same block.

Corrective Action

(None).

Syslog Message

shm: Disk %s has exceeded the threshold for checksum errors on the same block; the system will fail the disk.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.consecutiveAborts

Severity

ERROR

Description

This message occurs when a disk exceeds the threshold of consecutive abort errors on one drive.

Corrective Action

(None).

Syslog Message

shm: Disk %s has exceeded the threshold of %d consecutive abort errors; the system will fail the disk if possible.

Parameters

diskName (STRING): Name of the disk.
count (INT): Count of errors.

shm.threshold.consecutiveTimeouts

Severity

ERROR

Description

This message occurs when a disk exceeds the threshold of consecutive timeouts on one drive.

Corrective Action

(None).

Syslog Message

shm: Disk %s has exceeded the threshold of %d consecutive timeouts; the system will fail the disk if possible.

Parameters

diskName (STRING): Name of the disk.
count (INT): Count of errors.

shm.threshold.disk.pcycle

Severity

ERROR

Description

This message occurs when a disk exceeds the threshold of power-cycle error recovery tries.

Corrective Action

(None).

Syslog Message

shm: Disk %s has exceeded the threshold for power-cycle error recovery events; the system will fail the disk if possible.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.disk.poh

Severity

NOTICE

Description

This message occurs when the storage system contains drives that exceed five years of cumulative power-on hours. This five-year period represents the expected reliable lifespan of the drive. The likelihood that a drive will fail increases significantly the longer the drive stays in use beyond its warranty period.

Corrective Action

For additional guidance, search for Support Bulletin SU464 on the NetApp Support Site.

There are "%d" drives that have exceeded five years of life. To view them, use the "storage disk show -power-on-hours >=43800 -fields power-on-hours" command.

Parameters

count (INT): Count of drives that have exceeded the five year threshold.

shm.threshold.highIOLatency

Severity

ERROR

Description

This message occurs when the system detects a disk that has an average IO latency during the current window that is significantly greater than all other drives of the same class.

Corrective Action

(None).

Syslog Message

Disk %s exceeds the average IO latency threshold and will be recommended for failure.

Parameters

disk_name (STRING): Name of the disk.

shm.threshold.lipStormReset

Severity

ERROR

Description

This message occurs when the system detects more than one instance of a disk resetting itself because of a large number of Loop Initialization Procedure requests (a LIP storm). The disk will be failed.

Corrective Action

Replace the disk.

Syslog Message

shm: The system has detected more than one LIP storm reset on disk %s.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.mediaErrorsLba

Severity

ERROR

Description

This message occurs when the system detects more than three media (recovered or medium) errors on the same block.

Corrective Action

(None).

Syslog Message

shm: Disk %s has had multiple media errors on sector %llu.

Parameters

diskName (STRING): Name of the disk.
block_num (LONGINT): Block number.

shm.threshold.mediaErrorsReassign

Severity

ERROR

Description

This message occurs when the system detects more than three medium and/or recovered errors in a 10-minute window on the same disk sector. The bad sector will be reassigned.

Corrective Action

(None).

Syslog Message

shm: Disk %s has had multiple media errors on the same sector in the last 10 minutes, and is reassigning the sector.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.mediumErrors

Severity

ERROR

Description

This message occurs when the system detects more than 25 medium errors in a 10-minute window.

Corrective Action

(None).

Syslog Message

shm: Disk %s has crossed the medium error threshold in a 10 minute window.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.mediumErrors7days

Severity

ERROR

Description

This message occurs when the system detects more than 100 medium errors in a seven-day window.

Corrective Action

(None).

Syslog Message

shm: Disk %s has crossed the medium error threshold in a seven-day window.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.ratedLife

Severity

NOTICE

Description

This message occurs when the rated life used by a solid state drive (SSD) exceeds 90%. When an SSD reaches 100% of rated life, it might not be able to retain data while powered off for long periods of time.

Corrective Action

The number of weeks of rated life remaining indicated for each SSD is an estimate based on past usage. If the SSD is expected to remain in service beyond the estimated remaining time, initiate planning for SSD replacement when the rated life reaches 100%. Use the "storage disk show -ssd-wear" command to monitor the current rated life used by your SSDs.

Syslog Message

shm: There are %d drives that have consumed at least 90 percent of their rated life: %s.

Parameters

count (INT): Count of drives that have exceeded the threshold.
disk_names (STRING): Name, percentage of rated life and estimated remaining time before reaching 100% rated life of each SSD that has exceeded the threshold.

shm.threshold.ratedLife2

Severity

ERROR

Description

This message occurs when the rated life used by a solid state drive (SSD) exceeds 95%. When an SSD reaches 100% of rated life, it might not be able to retain data while powered off for long periods of time.

Corrective Action

The number of weeks of rated life remaining indicated for each SSD is an estimate based on past usage. If the SSD is expected to remain in service beyond the estimated remaining time, initiate planning for SSD replacement when the rated life reaches 100%. Use the "storage disk show -ssd-wear" command to monitor the current rated life used by your SSDs.

Syslog Message

shm: There are %d drives that have consumed at least 95 percent of their rated life: %s.

Parameters

count (INT): Count of drives that have exceeded the threshold.
disk_names (STRING): Name, percentage of rated life and estimated remaining time before reaching 100% rated life of each SSD that has exceeded the threshold.

shm.threshold.ratedLifeMax

Severity

ALERT

Description

This message occurs when the rated life used value exceeds 100% on a solid state drive (SSD). When an SSD reaches 100% of rated life, it might not be able to retain data while powered off for long periods of time.

Corrective Action

Replace the SSDs that have reached the end of their rated life.

Syslog Message

shm: There are %d drives that have reached the end of their rated life: %s

Parameters

count (INT): Count of drives that have exceeded the threshold.
disk_names (STRING): Name and percentage of rated life of each SSD that has exceeded the threshold.

shm.threshold.recoveredErrors

Severity

ERROR

Description

This message occurs when the system detects more than 25 recovered errors in a 10-minute window.

Corrective Action

(None).

Syslog Message

shm: Disk %s has crossed the recovered error threshold in a 10 minute window.

Parameters

diskName (STRING): Name of the disk.

shm.threshold.sensekey

Severity

ERROR

Description

This message occurs when a disk exceeds the threshold of a particular sense key error.

Corrective Action

(None).

Syslog Message

shm: Disk %s has exceeded the threshold for sense key %d errors; the system will fail the disk if possible.

Parameters

diskName (STRING): Name of the disk.
senseKey (INT): Sense key value.

shm.threshold.spareBlocksConsumed

Severity

NOTICE

Description

This message occurs when the spare blocks consumed value exceeds the first threshold on an SSD drive.

Corrective Action

(None).

Syslog Message

shm: There are %d disks that have consumed at least 60 percent of their use-based internal spare capacity. The affected disks are: %s.

Parameters

count (INT): Count of disks which have exceeded the threshold.
disk_names (STRING): Names of the disk drives.

shm.threshold.spareBlocksConsumedMax

Severity

NOTICE

Description

This message occurs when the spare blocks consumed value exceeds the second threshold on an SSD drive.

Corrective Action

(None).

Syslog Message

shm: There are %d disks that have consumed at least 80 percent of their use-based internal spare capacity. The affected disks are: %s.

Parameters

count (INT): Count of disks which have exceeded the second threshold.
disk_names (STRING): Names of the disk drives.

showmount events

showmount.update events

showmount.update.failed

Severity

ERROR

Description

This message occurs when the showmount job fails to update the "exports.data" file. This file provides a list of exported volumes and qtrees on the NFS server to any clients running the "showmount -e" command.

Corrective Action

Verify that the root volume of the Vserver is online and not full. After the Vserver is online and space is available, run the following command: "export-policy cache flush -vserver <vserver-name> -cache showmount".

Syslog Message

Flushing to exports.data file failed on Vserver "%s".

Parameters

vserver (STRING): Name of the Vserver where the problem is occurring.

sis events

sis.aggr events

sis.aggr.cvs.undo.abort

Severity

NOTICE

Description

This message occurs when undo of cross volume savings on aggregate has to abort due to some error conditions.

Corrective Action

(None).

Syslog Message

Undo of cross volume savings on aggregate %s aborted. Volume %s encountered error: %s

Parameters

aggr_name (STRING): Aggregate name.
vvol_name (STRING): Flex volume name.
error (STRING): Error code for the abort.

sis.aggr.metadir.create.failed

Severity

ERROR

Description

This message occurs when the creation of SIS metafiles in the aggregate containing the SIS volume fails. Change logging will be turned off on the volume.

Corrective Action

Ensure that space is available in the aggregate containing the volume. Use the 'sis on' command to turn on change logging on the volume, which attempts to re-create SIS metafiles in the aggregate. If enough space is available, start wafliron on the aggregate containing the indicated flexible volume.

Syslog Message

Creation of aggregate metadir failed for SIS volume %s%s. Change logging will be turned off on the volume: %s.

Parameters

volname (STRING): SIS volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
reason (STRING): Reason for the failure.

sis.auto events

sis.auto.session.change

Severity

NOTICE

Description

This message occurs whenever the number of background deduplication sessions change on a node because of throttling based on system load for the volumes with efficiency policy type as auto.

Corrective Action

(None).

Syslog Message

ADS: Number of auto sessions changed from %d to %d

Parameters

old_sessions (INT): prev sessions count.
new_sessions (INT): new sessions count.

sis.autosched events

sis.autoSched.failed

Severity

ERROR

Description

This event is issued when a SIS volume operation could not be auto scheduled due to unexpected conditions.

Corrective Action

(None).

Syslog Message

SIS operation for %s%s could not be auto scheduled: %s

Parameters

vol (STRING): Path to a SIS volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Error message

sis.c2c events

sis.c2c.start.fail

Severity

ERROR

Description

This event is issued when dense scanner could not start on c2c restore volume during restore operation.

Corrective Action

Run "sis start" command to manually start the SIS scanner.

Syslog Message

SIS scanner on C2C restore volume %s%s could not be started: %s.

Parameters

vol (STRING): The name of the volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Error message

sis.cfg events

sis.cfg.deleted

Severity

ERROR

Description

This message occurs when the configuration file for a Single Instance Storage (SIS) volume is deleted. This leads to the loss of deduplication configuration for the volume and statistics of deduplication operations.

Corrective Action

Remount the volume, enable deduplication using the "sis on" command, configure the volume using the "sis config" command, and then run the "sis start -s -m" command to start building deduplication metadata.

Syslog Message

SIS configuration for volume %s%s was deleted: %s. Remount the volume, then enable SIS and reconfigure the volume to resume deduplication.

Parameters

path (STRING): Path to a SIS volume.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
reason (STRING): Reason for deletion.

sis.cfg.invalidEntry

Severity

ERROR

Description

This event is issued when a SIS volume operation found an invalid configuration for the volume.

Corrective Action

Automatically checks and creates default configuration after detection. Please use 'sis' command to change default settings.

Syslog Message

SIS volume configuration: found invalid SIS configuration file %s%s: %s

Parameters

path (STRING): Path to a SIS volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
reason (STRING): Reason why SIS operation considered it as wrong.

sis.cfg.setFailed

Severity

ERROR

Description

This message occurs when a Single Instance Storage (SIS) volume operation fails to write in the configuration file. This might lead to incorrect reporting of statistics. If the error occured during a Data ONTAP® version upgrade, it might also lead to the upgraded configuration not being loaded. The volume might not appear in the 'sis status' command output as a result. Also, the system might not allow changing the configuration for that volume.

Corrective Action

Ensure that space is available in the indicated volume. If this error occured during a Data ONTAP version upgrade and the volume does not appear in the 'sis status' command output, remount the volume after correcting the underlying condition. If enough space is available, start wafliron on the aggregate containing the indicated flexible volume.

Syslog Message

Saving SIS volume configuration for volume %s%s : %s

Parameters

path (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
reason (STRING): Reason for the failure.

sis.changelog events

sis.changelog.full

Severity

ERROR

Description

This message occurs when the Single Instance Storage (SIS) change logging metafile is full. Change logging is stopped. New writes to the volume will not be change logged until the next SIS operation.

Corrective Action

Issue the 'sis start' command on the volume to process existing changelogs. To process changelog files more frequently before they reach full, adjust the SIS operation schedule with the 'sis config -s' command. If there is significant loss of savings, then run the 'sis start -s' command, allowing it to run to completion.

Syslog Message

SIS change logging metafile for volume %s%s%s is full.

Parameters

host (STRING): Owning host of the volume.
vol (STRING): Name of the volume.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

sis.changelog.noinit

Severity

ERROR

Description

This event is issued when the change logging operation could not be initialized on a SIS volume.

Corrective Action

Run "sis on" command to reinitialzie the change logging operation.

Syslog Message

Change logging operation on volume %s%s could not be initialized: %s.

Parameters

vol (STRING): The name of the volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Error message

sis.changelog.noload

Severity

NOTICE

Description

This event is issued when prior change logging metafiles could not be reused during the initialization. New metafiles will be created for the operation.

Corrective Action

(None).

Syslog Message

Prior Change logging metafiles on volume %s%s could not be reused.

Parameters

vol (STRING): The name of the volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.changelog.truncate

Severity

NOTICE

Description

This message occurs when the Single Instance Storage (SIS) change logging metafile is truncated as part of ADS session.

Corrective Action

(None).

Syslog Message

Prior Change logging metafiles on volume %s%s are truncated.

Parameters

host (STRING): Owning host of the volume.
vol (STRING): Name of the volume.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

sis.chkpoint events

sis.chkpoint.delete

Severity

INFORMATIONAL

Description

This message occurs when a Single Instance Storage (SIS) checkpoint is deleted. The current SIS operation is restarted from the beginning.

Corrective Action

(None).

Syslog Message

SIS checkpoint on the volume '%s%s' is deleted. Starting current SIS operation from the beginning.

Parameters

volume (STRING): Volume path.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.chkpoint.restore.failed

Severity

ERROR

Description

This message occurs when a Single Instance Storage (SIS) operation fails to restore from a previous checkpoint. The SIS operation is restarted from the beginning.

Corrective Action

(None).

Syslog Message

SIS operation on the volume '%s%s' failed to restore from a previous checkpoint. Starting SIS operation from the beginning.

Parameters

> **volume** (STRING): Volume name.
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.clog events

sis.clog.disabled

Severity

> ERROR

Description

> This message occurs while mounting a volume, when an error with the SIS metafile operation results in the change logging function being disabled to avoid inconsistencies.

Corrective Action

> Reinitialize the change logging operation by using the 'sis on' command.

Syslog Message

> Change logging has been disabled for %s%s due to an error that occurred while mounting the volume during the SIS metafile operation: %s.

Parameters

> **path** (STRING): Path to the SIS volume.
> **volident** (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
> **reason** (STRING): Reason for the failure.

sis.compress events

sis.compress.skip

Severity

> INFORMATIONAL

Description

> This message occurs when postprocess compression is skipped during a deduplication operation, even though postprocess compression is enabled on the volume. Post process compression is not supported on a node configured with the All-Flash Optimized personality.

Corrective Action

> (None).

Syslog Message

> Skipped postprocess compression on volume %s%s because the node is All-Flash Optimized.

Parameters

> **path** (STRING): Path to the deduplicated volume.
> **volident** (STRING): Unique volume identifier.

sis.corrupt events

sis.corrupt.metafile.deleted

Severity

NOTICE

Description

This message occurs when a Single Instance Storage (SIS) metafile is deleted because there are Disk/Media errors affecting the file.

Corrective Action

The deleted metafile might be recovered automatically the next time you run the 'sis start' command. If you have not previously run the 'sis start' command on this volume, run the 'sis start -s' command to generate metafiles and obtain efficient deduplication. Contact NetApp technical support for guidance.

Syslog Message

SIS metafile on volume '%s%s' is deleted.

Parameters

volume (STRING): Volume path.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.default events

sis.default.auto.se.enable

Severity

NOTICE

Description

This message occurs whenever volume move is done from a non All Flash Optimized node to an All Flash Optimized node and we attempt to enable storage efficiency features and automatic offline volume efficiency.

Corrective Action

(None).

Syslog Message

Volume efficiency features will be enabled for volume %s on aggregate %s.

Parameters

vvol_name (STRING): Flex volume name.
aggr_name (STRING): Aggregate name.

sis.default.auto.se.enable.fail

Severity

NOTICE

Description

This message occurs whenever volume move is done from a non All Flash Optimized node to an All Flash Optimized node and the attempt to enable automatic offline volume efficiency failed.

Corrective Action

(None).

Syslog Message

Failed to enable automatic offline volume efficiency features for volume %s on aggregate %s.

Parameters

vvol_name (STRING): Flex volume name.
aggr_name (STRING): Aggregate name.
reason (STRING): Reason for the failure.

sis.enable events

sis.enable.post.sm.break

Severity

NOTICE

Description

This message occurs when the "storage efficiency" feature is enabled on a destination volume due to a broken SnapMirror® relationship on an All Flash Optimized system. When the relationship breaks, the DP volume is converted to RW, and all RW volumes have the "storage efficiency" feature enabled.

Corrective Action

(None).

Syslog Message

"Storage efficiency" feature has been enabled on the destination volume %s due to a SnapMirror break operation.

Parameters

volume (STRING): Destination FlexVol® volume name on which the "storage efficiency" feature is enabled.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.enable.post.ssm.init

Severity

NOTICE

Description

This message occurs when the "storage efficiency" feature is enabled on a destination volume with Synchronous SnapMirror® on an All Flash Optimized system.

Corrective Action

(None).

Syslog Message

"Storage efficiency" feature has been enabled on the destination volume %s after Asynchronous Snapmirror converted to Synchronous Snapmirror.

Parameters

volume (STRING): Destination FlexVol® volume name on which the "storage efficiency" feature is enabled.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.fingerprint events

sis.fingerprint.notify.lost

Severity

NOTICE

Description

This message occurs when a bad block is encountered while reading SIS metafiles. As a result, some of the fingerprint records used to identify blocks for use in deduplication might have been lost. The only impact from this is lower efficiency in deduplication.

Corrective Action

(None).

Syslog Message

Bad block found while reading SIS metafiles for volume %s%s. As a result some fingerprint data might have been lost and could result in lower space savings.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.idedup events

sis.idedup.disable

Severity

NOTICE

Description

This message occurs when inline deduplication is disabled if aggregate is not hybrid or not part of All-Flash Optimized node since inline deduplication is not supported on them.

Corrective Action

(None).

Syslog Message

Disabled inline deduplication on volume %s%s because the aggregate is not hybrid or not part of All-Flash Optimized node.

Parameters

path (STRING): Path to the deduplicated volume.
volident (STRING): Unique volume identifier.

sis.incorrect events

sis.incorrect.duration.notify

Severity

ERROR

Description

This message occurs when a Single Instance Storage (SIS) volume repeatedly can not finish SIS operation within user-given 'duration' settings.

Corrective Action

Change duration settings appropriately, based on SIS completion time history and total amount data that needs to be processed.

Syslog Message

SIS operation repeatedly can not finish within duration limits specified by user.

Parameters

volname (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.logical events

sis.logical.limit.near

Severity

NOTICE

Description

This message occurs when the deduplication engine's logical data limit is nearly reached on a volume. Logical data is the summation of used blocks, saved blocks, and compressed blocks in the volume.

Corrective Action

Move data to another volume or delete unwanted data from the volume.

Syslog Message

Deduplication engine's logical data limit is nearly reached on volume %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.logical.limit.reached

Severity

NOTICE

Description

This message occurs when the deduplication engine's logical data limit is reached on the volume. Deduplication operations might not run on the volume. Logical data is the summation of used blocks, saved blocks, and compressed blocks in the volume.

Corrective Action

Move data to another volume or delete unwanted data from the volume.

Syslog Message

Deduplication engine's logical data limit was reached on volume %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.max events

sis.max.saving.near

Severity

NOTICE

Description

This message occurs when Single Instance Storage (SIS) savings on the volume is nearing its maximum limit. No further savings can be realized on the volume after the limit is reached.

Corrective Action

(None).

Syslog Message

Maximum savings limit nearly reached on volume %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.max.saving.reached

Severity

NOTICE

Description

This message occurs when Single Instance Storage (SIS) savings on the volume reaches its maximum limit. No further savings can be realized on the volume.

Corrective Action

(None).

Syslog Message

Maximum savings limit reached on volume %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.metadata events

sis.metadata.inconsistent

Severity

ERROR

Description

This message occurs when inconsistencies are found in deduplication metadata. This might be due to a failed metadata upgrade. The impact will be very low deduplication savings.

Corrective Action

Run the 'sis start -s -m -vserver vserver_name -volume volume_name' command. This rebuilds the deduplication metadata. If the command fails or if subsequent deduplication runs do not provide adequate space savings, contact NetApp technical support.

Syslog Message

Deduplication metadata is inconsistent in volume: %s%s.

Parameters

volume (STRING): Volume name.
volident (STRING): Unique volume identifier for cases when the volume name alone is insufficient.

sis.op events

sis.op.aborted

Severity

ERROR

Description

This event is issued when a SIS volume operation is aborted due to unexpected conditions.

Corrective Action

(None).

Syslog Message

SIS operation for %s%s has aborted: %s

Parameters

path (STRING): Path to a SIS volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Error message

sis.op.idle

Severity

NOTICE

Description

This message occurs when deduplication is enabled on the volume and deduplication process has not been run for more than configured idle threshold time set(default 7 days).

Corrective Action

Run the "sis start" command.

Syslog Message

SIS operation is idle on volume "%s" since %d weeks %d days.

Parameters

volpath (STRING): Volume name.
last_dedup_time (INT): Last Successful Deduplication operation on volume in weeks.
last_dedup_time_days (INT): Last Successful Deduplication operation on volume in days.

sis.op.stopped

Severity

INFORMATIONAL

Description

This event is issued when a SIS volume operation is stopped by user.

Corrective Action

(None).

Syslog Message

SIS operation for %s%s has stopped

Parameters

path (STRING): Path to a SIS volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.policy events

sis.policy.predef.create.upgradeError

Severity

NOTICE

Description

This message occurs during system software upgrade to Data ONTAP® 8.1 or later, while creating predefined policies. There is a user policy with the same name as a predefined policy prior to upgrade, and it cannot be renamed.Therefore, the predefined policy cannot be created.

Corrective Action

Rename pre-existing user policy and run system software upgrade again.

Syslog Message

Policy upgrade failed because the user policy %s could not be renamed to %s.

Parameters

old_user_policy (STRING): Name of the preexisting user policy.
renamed_user_policy (STRING): New name for the preexisting user policy.

sis.policy.rename.upgrade

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 8.1 or later, while creating predefined efficiency policies. The user policy was renamed because of the creation of predefined policies.

Corrective Action

(None).

Syslog Message

During upgrade, user policy name %s is changed to %s.

Parameters

old_user_policy (STRING): Name of the preexisting user policy.
renamed_user_policy (STRING): New name for the preexisting user policy.

sis.reg events

sis.reg.invalidEntry

Severity

ERROR

Description

This event is issued when a SIS volume operation found an invalid registry entry.

Corrective Action

(None).

Syslog Message

SIS volume registry: found invalid SIS registry entry for %s%s: %s

Parameters

> **path** (STRING): Path to a SIS volume
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
> **regval** (STRING): Registry value

sis.revert events

sis.revert.to.has.Aborted

Severity

> NOTICE

Description

> This message occurs when the Single Instance Storage (SIS) volume command 'sis revert_to' has failed.
> This might prevent running generic Data ONTAP® 'revert_to' command successfully

Corrective Action

> (None).

Syslog Message

> sis 'revert_to' command has failed on volume %s%s :%s

Parameters

> **path** (STRING): Path to the SIS volume
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
> **reason** (STRING): Reason for the failure.

sis.revert.to.has.Succeeded

Severity

> NOTICE

Description

> This message occurs when the Single Instance Storage (SIS) volume command 'sis revert_to' has
> succeeded.

Corrective Action

> (None).

Syslog Message

> 'sis revert_to' command has succeeded on volume %s%s

Parameters

> **path** (STRING): Path to the SIS volume
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.revert.to.large.vol

Severity

> ERROR

Description

This message occurs when the Single Instance Storage (SIS) volume command 'sis revert_to' fails because the logical data exceeded the maximum allowed for SIS in the target release. This is to prevent growing deduplication metadata beyond the size that is supported in the target release. Logical data is the summation of used blocks, saved blocks, and compressed blocks in the volume. This might prevent running the generic Data ONTAP® 'revert_to' command successfully.

Corrective Action

Shrink the volume or run 'sis revert_to -delete vol_path' to delete deduplication metadata from this volume.

Syslog Message

'sis revert_to' command has failed on volume %s%s. Volume exceeded the maximum allowed logical data limit of %d TB for SIS in the target release.

Parameters

path (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
maxVolSize (INT): Maximum size of the SIS volume in the target release.

sis.revert.to.space.warning

Severity

INFORMATIONAL

Description

This message occurs when a Single Instance Storage (SIS) volume command 'sis revert_to' is run. This message indicates that adding more data during this command execution might abort that operation due to insufficient space.

Corrective Action

(None).

Syslog Message

Adding data to volume %s%s while the 'sis revert_to' command is running might lead to insufficient free space and failure of that operation.

Parameters

path (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

sis.revert.to.write.Failed

Severity

ERROR

Description

This message occurs when the Single Instance Storage (SIS) volume command 'sis revert_to' fails to write to a file or create a file related to a revert_to operation. This might prevent running generic Data ONTAP® 'revert_to' command successfully

Corrective Action

Ensure that space is available in the indicated volume or in the aggregate it belongs to. After space is is available, rerun the 'sis revert_to' command.

Syslog Message

'sis revert_to' command failed on volume %s%s :%s.

Parameters

path (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
reason (STRING): Reason for the failure.

sis.revertmetacreate events

sis.revertmetacreate.failed

Severity

ERROR

Description

This message occurs when Single Instance Storage (SIS) metafiles cannot be created in the flexible volume metadir during a reversion to an earlier version of Data ONTAP®.

Corrective Action

Following this error, SIS is disabled for the volume. After correcting the underlying issue indicated by the error message, enable SIS again using the 'sis on' command. SIS then resumes normally.

Syslog Message

Could not create the metafiles for the volume %s%s in the volume metadir: %s SIS is turned off for this volume.

Parameters

vol (STRING): Path to the volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Reason for the failure.

sis.schedule events

sis.schedule.notify.change

Severity

NOTICE

Description

This message occurs when the Single Instance Storage (SIS) schedule of a volume is changed to the default schedule (sun-san@0) because the node's clusterid does not match with the SIS config clusterid. This can happen when a volume is replicated to a node belonging to another cluster.

Corrective Action

Use the sis config command to set a SIS policy on the volume.

Syslog Message

SIS policy for volume %s%s is no longer valid because of the clusterid mismatch. SIS schedule is set to the default schedule sun-sat@0.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.schedule.notify.change.compression

Severity

NOTICE

Description

This message occurs when a volume with background compression has an auto type policy. The policy is replaced with a default schedule (sun-sat@0). This can happen when a volume is being re-mounted during which efficiency policy type is changed to auto.

Corrective Action

Use the volume efficiency modify command to set a efficiency policy on the volume. For example: volume efficiency modify -volume volume-name -policy policy-name

Syslog Message

Efficiency policy for volume %s%s is auto type and is not supported with background compression. The schedule is set to the default schedule sun-sat@0.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.schedule.notify.change.snapmirror

Severity

NOTICE

Description

This message occurs when a SnapMirror® relationship spanning across Vservers breaks. In such cases, the efficiency policy on the destination is no longer valid; it is replaced with the default schedule (sun-sat@0).

Corrective Action

Use the 'volume efficiency modify' command to set a efficiency policy on the volume. For example: volume efficiency modify -volume volume-name -policy policy-name

Syslog Message

Efficiency policy for volume %s%s is not valid and has been replaced with default schedule (sun-sat@0).

Parameters

    volume (STRING): Volume name.
    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.undo events

sis.undo.aborted

Severity

    ERROR

Description

    This messages occurs when a SIS volume 'undo' operation is aborted due to unexpected conditions.

Corrective Action

    (None).

Syslog Message

    SIS undo operation for '%s%s' has aborted: '%s'.

Parameters

    path (STRING): Path to a SIS volume.
    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
    err (STRING): Error message.

sis.undo.aborted.inconsistent

Severity

    ALERT

Description

    This message occurs when a SIS volume 'undo' operation is aborted due to volume inconsistency.

Corrective Action

    Run wafliron to remove inconsistencies in the volume, then retry the operation.

Syslog Message

    SIS 'undo' operation for '%s%s' has aborted due to volume inconsistencies.

Parameters

    path (STRING): Path to a SIS volume.
    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.undo.done

Severity

    NOTICE

Description

This message occurs when 'sis undo -t wrong' command removes the sharing on improperly shared inodes.

Corrective Action

(None).

Syslog Message

The 'sis undo -t wrong' command removed sharings on improperly shared inodes in the volume '%s%s'. Details about cleaned inodes are available at '%s'.

Parameters

volume (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
log_location (STRING): SIS undo log location.

sis.undo.nospace

Severity

ERROR

Description

This event is issued to indicate that there is not enough free space to undo the shared blocks on a SIS volume. The undo operation will be aborted. Data blocks that were still shared at the time the undo operation stopped will remain shared. Blocks already processed by the undo operation are no longer shared.

Corrective Action

Free disk space in the volume, or increase the size of the volume, then retry the operation.

Syslog Message

Undoing shared blocks on volume %s%s has aborted because there is insufficient free space. Data blocks that were still shared at the time the undo operation stopped will remain shared. Blocks already processed by the undo operation are no longer shared.

Parameters

vol (STRING): Path to a SIS volume
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.undo.required

Severity

NOTICE

Description

This message occurs when 'sis undo -t wrong -d' command finds improperly shared inodes.

Corrective Action

Run the 'sis undo -t wrong' or 'sis undo -i' command to remove improperly shared inodes.

Syslog Message

The 'sis undo -t wrong -d' command detected improperly shared inodes in the volume '%s%s'. Run the 'sis

undo -t wrong' or 'sis undo -i' command to remove improperly shared inodes. Details about improperly shared inodes are available at '%s'.

Parameters

> **volume** (STRING): Volume name.
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
> **log_location** (STRING): SIS undo log location.

sis.undo.started

Severity

> INFORMATIONAL

Description

> This message occurs when a SIS undo operation is started.

Corrective Action

> (None).

Syslog Message

> SIS undo operation for %s%s has started.

Parameters

> **path** (STRING): Path to a SIS volume.
> **volident** (STRING): Uniquely identifies the volume when the volume name alone is insufficient.

sis.undo.stopped

Severity

> ERROR

Description

> This event is issued when a SIS volume undo operation is stopped by user.

Corrective Action

> (None).

Syslog Message

> SIS undo operation for %s%s has stopped.

Parameters

> **path** (STRING): Path to a SIS volume
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.upgrade events

sis.upgrade.aggr.metafile.failed

Severity

> ERROR

Description

This message occurs when Single Instance Storage (SIS) metafiles cannot be created in the aggregate containing the volume, during a Data ONTAP® upgrade. The aggregate might be full. The 'sis status' command will not display this volume. SIS operations cannot be triggered manually or according to a schedule for the volume.

Corrective Action

Ensure that space is available in the aggregate containing the volume. After correcting the underlying issue indicated by the error message, remount the volume for the SIS upgrade to be triggered again. If the upgrade succeeds, SIS then resumes normally.

Syslog Message

Could not create the metafiles for the volume %s%s : %s.

Parameters

volname (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Reason for the failure.

sis.upgrade.feature.enable

Severity

NOTICE

Description

This message occurs during upgrade to Data ONTAP® 9.2 or later, when we start enabling Volume Efficiency features on the existing compatible volumes on All-Flash Optimized nodes in the background.

Corrective Action

(None).

Syslog Message

Volume efficiency features will be enabled on Volumes of All-Flash Optimized nodes in the Cluster.

Parameters

(None).

sis.upgrade.feature.enable.done

Severity

NOTICE

Description

This message occurs during upgrade to Data ONTAP® 9.2 or later, when we have completed enabling the Volume Efficiency features on the existing compatible volumes.

Corrective Action

(None).

Syslog Message

Volume efficiency features were enabled on Volumes of All-Flash Optimized nodes in the Cluster.

Parameters

(None).

sis.upgrade.feature.enable.fail

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.2 or later, when we fail to enable Volume Efficiency features on the existing compatible volume on All-Flash Optimized nodes.

Corrective Action

Manually try enabling the Volume Efficiency features on the volume using the "volume efficiency modify" command.

Syslog Message

Could not enable Volume Efficiency features for Volume %s of vserver %s.%s

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.
reason (STRING): Reason for failure.

sis.upgrade.feature.enabled

Severity

INFORMATIONAL

Description

This message occurs during upgrade to Data ONTAP® 9.2 or later, when we enable Volume Efficiency features on the existing compatible volume on All-Flash Optimized nodes.

Corrective Action

(None).

Syslog Message

Volume Efficiency features enabled on Volume %s of Vserver %s.

Parameters

volume (STRING): Volume name.
vserver (STRING): Vserver name.

sis.upgrademetafile events

sis.upgrademetafile.failed

Severity

ERROR

Description

This message occurs when Single Instance Storage (SIS) metafiles cannot be created during a Data ONTAP® upgrade. The 'sis status' command will not display this volume. SIS operations cannot be triggered manually or according to a schedule for the volume.

Corrective Action

Correct the underlying issue indicated by the error message, and then run 'sis on' command to trigger the SIS upgrade again. If the upgrade succeeds, SIS then resumes normally.

Syslog Message

Could not create the metafiles for the volume %s%s: %s.

Parameters

vol (STRING): Path to the volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
err (STRING): Reason for the failure.

sis.verify events

sis.verify.suspended

Severity

NOTICE

Description

This message occurs when the system suspends a Single Instance Storage (SIS) volume checking operation to to run a queued SIS operation.

Corrective Action

(None).

Syslog Message

(None).

Parameters

path (STRING): Path to the SIS volume.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

sis.vol events

sis.vol.auto.promote

Severity

NOTICE

Description

This message occurs when deprioritized volume gets auto promoted.

Corrective Action

(None).

Syslog Message

Volume "%s" is auto promoted: Percentage of writes happened in this window (%d%%) and percentage of dedupe savings (%d%%).

Parameters

vvol_name (STRING): Volume name.
inline_process_pct (INT): Percentage of writes happened after one window.
inline_saving_pct (INT): Percentage of inline dedupe savings in each window.

sis.vol.overwrite.depri

Severity

NOTICE

Description

This message occurs when automatic deduplication deprioritizes a volume due to a large number of overwrites in the block fingerprint log file.

Corrective Action

(None).

Syslog Message

Automatic deduplication on volume "%s" is deprioritized: percentage of overwrites in the fingerprint log file is %d%%.

Parameters

vvol_name (STRING): Volume name.
stale_pct (INT): Percentage of cumulative stale fingerprints after the fifth iteration of automatic deduplication runs.

sis.vol.savings.depri

Severity

NOTICE

Description

This message occurs when automatic deduplication deprioritizes a volume due to potentially low storage efficiency savings.

Corrective Action

(None).

Syslog Message

Automatic deduplication on volume "%s" is deprioritized: low background savings (%d%%), low cross volume deduplication savings (%d%%) and low inline savings (%d%%) when compared total with minimum required (%d%%) .

Parameters

vvol_name (STRING): Volume name.
bkg_savings (INT): Background deduplication savings realized after the fifth iteration of automatic deduplication runs.
cvbd_savings (INT): Cross Volume deduplication savings realized on the volume.
inline_savings (INT): Inline deduplication savings realized on the volume.
min_savings_req (INT): Min Savings required

sis.vol.verify.depri

Severity

NOTICE

Description

This message occurs when automatic deduplication deprioritizes a volume due to a large number of stale fingerprint removal operations on the volume.

Corrective Action

(None).

Syslog Message

Automatic deduplication on volume "%s" is deprioritized: significant percentage of stale fingerprint removal operations (%d%%).

Parameters

vvol_name (STRING): Volume name.
high_verify_pct (INT): Percentage of cumulative stale fingerprint removal operations after the fifth iteration of automatic deduplication runs.

sis.wafliron events

sis.wafliron.required

Severity

ALERT

Description

This message occurs when a requested SIS volume 'undo' operation fails to correct on-disk corruption and requires wafliron to be run.

Corrective Action

Start wafliron (Command Line: 'aggr wafliron start'. See 'aggr help wafliron' for help) to correct on-disk corruptions after completion of current 'sis undo' operation on the volume.

Syslog Message

SIS 'undo' command detected on-disk corruption while working on unshare request. Run wafliron for volume '%s%s' of aggregate '%s' after completion of current 'sis undo' operation on the volume. See 'aggr help wafliron' for options on running wafliron.

Parameters

    volume (STRING): Name of the affected volume.

    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

    aggregate (STRING): Aggregate name containing the affected volume.

siw events

siw.cpubindingfailed events

siw.cpuBindingFailed

Severity

ERROR

Description

This message occurs when the system fails to bind a SW-iWARP thread to a CPU during the boot-up. If this happens, SW-iWARP cannot support polling and will be running in a degraded state.

Corrective Action

Try a takeover and giveback of both of the nodes. If it still fails, contact NetApp technical support.

Syslog Message

SW-iWARP thread could not be bound to a CPU because: "%s".

Parameters

reason (STRING): Reason for the CPU binding failure

siw.mpaverrelaxed events

siw.mpaVerRelaxed

Severity

ERROR

Description

This message occurs when there is a mismatch in SW-iWARP versions, but due to negotiation or enhanced connect being enabled. The SW-iWARP booted up with reduced functionality and performance capabilities.

Corrective Action

Upgrade the ONTAP® release on the local node and the partner node to the same version of SW-iWARP to run with full functionality and performance capabilities.

Syslog Message

SIW Version mismatch between the local node and partner node. Local IRD: %d ORD: %d Partner IRD: %d ORD: %d

Parameters

localIRD (INT): Local IRD value.
localORD (INT): Local ORD value.
partnerIRD (INT): Partner IRD value.
partnerORD (INT): Partner ORD value.

siw.mpaversionmismatch events

siw.mpaVersionMismatch

Severity

ALERT

Description

This message occurs when there is SW-iWARP Version mismatch between the HA nodes. SW-iWARP cannot start up and nodes are not connected.

Corrective Action

Upgrade the ONTAP® release on the nodes to the same version of SW-iWARP to bring up the SW-iWARP and connect the nodes.

Syslog Message

SW-iWARP version mismatch between the local node and the partner node.

Parameters

(None).

siw.pollingenablefailed events

siw.pollingEnableFailed

Severity

ERROR

Description

This message occurs when SW-iWARP device polling cannot be enabled during the boot-up and SW-iWARP will be running in a degraded state.

Corrective Action

Try a takeover and giveback of the local node. If it still fails, contact NetApp technical support.

Syslog Message

SW-iWARP polling could not be enabled because the polling device was not ready.

Parameters

(None).

sk events

sk.hog events

sk.hog.runtime

Severity
NOTICE

Description
This event is issued when a process runs too long.

Corrective Action
(None).

Syslog Message
Process %s ran for %d milliseconds

Parameters
procname (STRING): The name of the process which ran too long
runtime (INT): Number of milliseconds process ran

sk.kt events

sk.kt.rtc

Severity
INFORMATIONAL

Description
This is the output of debugging command that prints the time of day held in the real-time clock chip.

Corrective Action
(None).

Syslog Message
RTC time: %s

Parameters
rtc_time (STRING): The time held in the real-time clock chip.

sk.panic events

sk.panic

Severity
ALERT

Description

This event is issued when a panic occurs.

Corrective Action

(None).

Syslog Message

Panic String: %s

Parameters

reason (STRING): (None).

sk.ring events

sk.ring.buffer.saved

Severity

INFORMATIONAL

Description

This message indicates that a module detected a condition that warranted dumping the internal tracing buffer to a file.

Corrective Action

(None).

Syslog Message

(None).

Parameters

module (STRING): Module requesting the dump.
filename (STRING): Filename-extension of the dump file created. The filename-base is accessible by running the 'sysctl ntap.sktrace.filename' command at a shell prompt.
description (STRING): Description of the state that caused the dump and when the dumped file should be examined. For example, if the buffers are dumped during replication and the system is experiencing replication errors, then the dumped file might hold information important for debugging.

sla events

sla.shelf events

sla.shelf.mod.reboot

Severity

NOTICE

Description

This message occurs when a shelf firmware module is rebooted administratively, or when a reboot occurs normally when the system powers up, the firmware is updated, or the alternate control path (ACP) is reset.

Corrective Action

(None).

Syslog Message

Reboot event reported by module %s in shelf: %s, log: %s

Parameters

module (STRING): Module designator (A or B).
shelf (STRING): Shelf identifier.
log (STRING): Reboot event log from the shelf module.

sla.shelf.mod.reboot.unexp

Severity

ERROR

Description

This message occurs when a shelf firmware module reboots unexpectedly (not due to powering up, a firmware update, an alternate control path (ACP) reset, nor an administrative reboot).

Corrective Action

Check the cabling to the shelf. Check the status LED on the shelf, making sure that the fault LEDs are not on. Clear any fault condition, if possible.

Syslog Message

Unexpected reboot event reported by module %s in shelf: %s, log: %s

Parameters

module (STRING): Module designator (A or B).
shelf (STRING): Shelf identifier.
log (STRING): Reboot event log from the shelf module.

sm events

sm.break events

sm.break.enable.se

Deprecated

Deprecated as of version 9.14.1.

Severity

NOTICE

Description

This message occurs when the "storage efficiency" feature is enabled on a destination volume due to a broken SnapMirror® relationship on an All Flash Optimized system. When the relationship breaks, the DP volume is converted to RW, and all RW volumes have the "storage efficiency" feature enabled.

Corrective Action

(None).

Syslog Message

"Storage efficiency" feature has been enabled on the destination volume %s due to a SnapMirror break operation.

Parameters

dst_path (STRING): Destination FlexVol® volume name on which the "storage efficiency" feature is enabled.

sm.c2c events

sm.c2c.rebaseline.xfer

Severity

INFORMATIONAL

Description

This message occurs when SnapMirror® performs a SnapMirror Cloud rebaseline transfer because certain conditions for an incremental transfer haven't been met between the source volume and the object-store destination endpoint of the transfer.

Corrective Action

(None).

Syslog Message

This will be a rebaseline transfer because certain conditions for an incremental transfer haven't been met between the source volume '%s' and the destination object-store endpoint '%s', with endpoint uuid '%s', and relationship uuid '%s'. Refer to the sktrace logs for additional details on which conditions haven't been met.

Parameters

src_path (STRING): Path name of the source volume of the SnapMirror relationship.
dst_ep_path (STRING): Path name of the destination object-store endpoint of the SnapMirror relationship.
dst_ep_uuid (STRING): UUID of the destination object-store endpoint of the SnapMirror relationship.
rel_uuid (STRING): UUID of the SnapMirror relationship.

sm.c2c.xfer.fail.no.com.snap

Severity

ERROR

Description

This message occurs when a SnapMirror® Cloud transfer fails because there is no common snapshot between the source volume and the object-store destination endpoint of the transfer.

Corrective Action

Retry the transfer by passing a specific snapshot name using the "-s" option. Note that once you choose to go ahead with that option, you will not be able to transfer snapshots older than the specified snapshot. So it is suggested to select a snapshot that is older than the snapshots that you would like to be backed up per schedule.

Syslog Message

There is no common snapshot between the source volume '%s' and the destination object-store endpoint '%s', with endpoint uuid '%s', and relationship uuid '%s'.

Parameters

src_path (STRING): Path name of the source volume of the SnapMirror relationship.
dst_ep_path (STRING): Path name of the destination object-store endpoint of the SnapMirror relationship.
dst_ep_uuid (STRING): UUID of the destination object-store endpoint of the SnapMirror relationship.
rel_uuid (STRING): UUID of the SnapMirror relationship.

sm.cascade events

SM.cascade.concurrency.unsupported

Severity

NOTICE

Description

This message occurs when concurrent SnapMirror® transfers are attempted while in a cascaded scenario, which is not supported. For example, in a relationship A→B→C, when an A→B SnapMirror update is occurring, a B→C SnapMirror update/initialize or a B→C SMTape backup cannot happen at the same time..

Corrective Action

(None).

Syslog Message

%s cascade concurrency is not supported for volume %s until the current transfer has ended.

Parameters

product (STRING): Either VSM-SMTape cascade or VSM-VSM/SMTape cascade
dstpath (STRING): Replication destination system.

sm.disable events

sm.disable.se

Severity

NOTICE

Description

This message occurs when the "storage efficiency" feature on a destination volume is automatically disabled successfully by the SnapMirror® resync or update operation.

Corrective Action

(None).

Syslog Message

Disabled the "storage efficiency" feature for volume %s during a %s.

Parameters

dst_path (STRING): Destination FlexVol® volume path on which the "storage efficiency" feature is disabled.
workflow_type (STRING): Workflow that disabled the "storage efficiency feature".

sm.disable.se.fail

Severity

ERROR

Description

This message occurs when the "storage efficiency" feature fails to disable on a destination volume during a SnapMirror® resync or update operation.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Disable storage efficiency manually by using the "volume efficiency off "volume_name" " command. If the failure persists, contact NetApp technical support.

Syslog Message

Failed to disable the "storage efficiency" feature for volume %s during a %s. Reason: %s.

Parameters

dst_path (STRING): Destination FlexVol® volume path on which the "storage efficiency" feature fails to disable.
workflow_type (STRING): Workflow that fails to disable the "storage efficiency" feature.
reason (STRING): Reason for the failure.

sm.dst events

sm.dst.vol.no.tag.metadata

Severity

ALERT

Description

This message occurs when the SnapMirror® labels are lost for all Snapshot copies on the vault destination. This happens when the snapshot tag's metafile of a volume has an inconsistent header. As a result, SnapMirror cannot automatically delete existing snapshots from the SnapVault® destination and can reach the maximum supported snapshot limit. New snapshots are not affected.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Delete the snapshots that are missing the SnapMirror label. Use "volume snapshot show -snapmirror-label -" command to list snapshots then delete the snapshots that are missing the SnapMirror label.

Syslog Message

The volume '%s' has lost SnapMirror label for all snapshots. SnapMirror will use the snapshot's name prefix to automatically delete snapshots based on SnapMirror policy "%s".

Parameters

dst_path (STRING): Destination volume of the SnapVault relationship.
policy_name (STRING): SnapMirror policy name.

sm.fgmirror events

sm.fgmirror.stale.grp.wkflw

Severity

ERROR

Description

This message occurs when improper group workflow cleanup caused the subsequent SnapMirror® operation to fail.

Corrective Action

Run the "snapmirror abort -h {-relationship-id <relationshipID>}" command, and then retry the SnapMirror operation.

Syslog Message

SnapMirror operation on relationship with relationshipID %s failed because of an existing stale group workflow.

Parameters

relationshipID (STRING): UUID of the SnapMirror relationship.

sm.keepcnt events

sm.keepcnt.reached

Severity

NOTICE

Description

This message occurs when new snapshots on the source volume cannot be transferred because the snapshot retention count (keep count) for snapshots with a given snapmirror-label has been reached on the destination volume and the 'preserve' flag is set to 'true'.

Corrective Action

See "Working with FlexVol volume SnapVault backups" in the Clustered Data ONTAP Data Protection Guide for details about managing SnapVault relationships.

Syslog Message

No new snapshots with snapmirror-label(s) %s can be transferred to destination volume %s because the keep count has been reached and the preserve value is set to 'true'.

Parameters

snap_label (STRING): Comma-separated list of snapmirror-labels for the snapshots that cannot be transferred.
dst_path (STRING): Destination volume of the SnapMirror® relationship.

sm.log events

sm.log.write.fail

Severity

ERROR

Description

This message occurs when writing SnapMirror® data to a log file fails. The most likely cause is insufficient space on the root volume.

Corrective Action

If the failure is due to lack of space, increase the root volume size or identify any SnapMirror logs that might not be needed, verify that backups exist for them, and then remove them. To check for available space across the cluster, use the 'df' command. If the condition persists, contact NetApp technical support.

Syslog Message

Writing log data of size %d bytes to SnapMirror log file '%s' failed with error '%s'.

Parameters

size (INT): Data size in bytes.
filepath (STRING): Log file path.
error (STRING): Error string.

sm.mediator events

sm.mediator.added

Severity

NOTICE

Description

This message occurs when ONTAP® Mediator is added successfully on a cluster.

Corrective Action

(None).

Syslog Message

ONTAP Mediator (version %s) is added on cluster '%s' having peer cluster '%s' and mediator IP address '%s'.

Parameters

version (STRING): ONTAP Mediator version.
cluster (STRING): Cluster name on which ONTAP Mediator was added.
peerCluster (STRING): Peer cluster name.
ipAddress (STRING): ONTAP Mediator IP address.

sm.mediator.cacert.expired

Severity

EMERGENCY

Description

This message occurs when the ONTAP® Mediator certificate authority (CA) certificate has expired. As a result, all further communication to the ONTAP Mediator will not be possible.

Corrective Action

Remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Update a new CA certificate on the ONTAP Mediator server. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

CA certificate of the ONTAP Mediator (IP: %s) expired on %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
expiryDate (STRING): Expiry date of the ONTAP Mediator CA certificate.

sm.mediator.cacert.expiring

Severity

ALERT

Description

This message occurs when the ONTAP® Mediator certificate authority (CA) certificate is due to expire within the next 30 days.

Corrective Action

Before this certificate expires, remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Update a new CA certificate on the ONTAP Mediator server. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

CA certificate for the ONTAP Mediator (IP: %s) will expire in %d days. Expiry: %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
daysToExpire (INT): Number of days remaining until the certificate expires.
expiryDate (STRING): Expiry date of the ONTAP Mediator CA certificate.

sm.mediator.clientc.expired

Severity

EMERGENCY

Description

This message occurs when the ONTAP® Mediator client certificate has expired. As a result, all further communication to the ONTAP Mediator will not be possible.

Corrective Action

Remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

Client certificate of the ONTAP Mediator (IP: %s) expired on %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
expiryDate (STRING): Expiry date of the ONTAP Mediator client certificate.

sm.mediator.clientc.expiring

Severity

ALERT

Description

This message occurs when the ONTAP® Mediator client certificate is due to expire within the next 30 days.

Corrective Action

Before this certificate expires, remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

Client certificate for the ONTAP Mediator (IP: %s) will expire in %d days. Expiry: %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
daysToExpire (INT): Number of days remaining until the certificate expires.
expiryDate (STRING): Expiry date of the ONTAP Mediator client certificate.

sm.mediator.in.quorum

Severity

NOTICE

Description

This message occurs when the ONTAP® Mediator connectivity is reestablished, its records are resynchronized and it is ready to participate in SnapMirror® active sync quorum activities.

Corrective Action

(None).

Syslog Message

The ONTAP Mediator (IP: %s) connectivity is reestablished, its records are resynchronized and it is ready to participate in SnapMirror® active sync quorum activities. Peer cluster: %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
peerCluster (STRING): Peer cluster name.

sm.mediator.misconfigured

Severity

ALERT

Description

This message occurs when either the ONTAP® Mediator is repurposed or the Mediator package is no longer installed on the Mediator server. As a result, SnapMirror® failover is not possible.

Corrective Action

Remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

ONTAP Mediator is not accessible on cluster "%s" with Mediator IP address "%s".

Parameters

cluster (STRING): Name of the cluster that is attempting to access the ONTAP Mediator.
ipAddress (STRING): IP address of the ONTAP Mediator.

sm.mediator.removed

Severity

NOTICE

Description

This message occurs when ONTAP® Mediator is removed successfully from a cluster.

Corrective Action

(None).

Syslog Message

ONTAP Mediator (version %s) was removed on cluster '%s' having peer cluster '%s' and mediator IP address '%s'.

Parameters

version (STRING): ONTAP Mediator version.
cluster (STRING): Cluster name on which ONTAP Mediator was removed.
peerCluster (STRING): Peer cluster name.
ipAddress (STRING): ONTAP Mediator IP address.

sm.mediator.removed.force

Severity

ERROR

Description

This message occurs when ONTAP® Mediator is removed from a cluster using the "force" option. As a result, the ONTAP Mediator configuration might still be present on the peer cluster. This results in a partial configuration that could lead to the failure of a SnapMirror® failover operation.

Corrective Action

Check whether the current ONTAP Mediator is configured on the peer cluster. If so, remove the ONTAP Mediator by using the (diagnostic privilege) "snapmirror mediator remove -force true" command. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

ONTAP Mediator (IP: %s, version: %s) was removed using the "force" option on cluster %s. Peer cluster %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
version (STRING): ONTAP Mediator version.
cluster (STRING): Cluster name on which ONTAP Mediator was removed.
peerCluster (STRING): Peer cluster name.

sm.mediator.resumed

Severity

NOTICE

Description

This message occurs when ONTAP® Mediator is resumed successfully on a cluster.

Corrective Action

(None).

Syslog Message

ONTAP Mediator was resumed on cluster '%s' having mediator IP address '%s'.

Parameters

cluster (STRING): Cluster name on which ONTAP Mediator was resumed.
ipAddress (STRING): ONTAP Mediator IP address.

sm.mediator.serverc.expired

Severity

EMERGENCY

Description

This message occurs when the ONTAP® Mediator server certificate has expired. As a result, all further communication to the ONTAP Mediator will not be possible.

Corrective Action

Remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Update a new server certificate on the ONTAP Mediator server. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

Server certificate of the ONTAP Mediator (IP: %s) expired on %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
expiryDate (STRING): Expiry date of the ONTAP Mediator server certificate.

sm.mediator.serverc.expiring

Severity

ALERT

Description

This message occurs when the ONTAP® Mediator server certificate is due to expire within the next 30 days.

Corrective Action

Before this certificate expires, remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Update a new server certificate on the ONTAP Mediator server. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message

Server certificate for the ONTAP Mediator (IP: %s) will expire in %d days. Expiry: %s.

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
daysToExpire (INT): Number of days remaining until the certificate expires.

expiryDate (STRING): Expiry date of the ONTAP Mediator server certificate.

sm.mediator.suspended

Severity
NOTICE

Description
This message occurs when ONTAP® Mediator is suspended successfully on a cluster.

Corrective Action
(None).

Syslog Message
ONTAP Mediator was suspended on cluster '%s' having mediator IP address '%s'.

Parameters
cluster (STRING): Cluster name on which ONTAP Mediator was suspended.
ipAddress (STRING): ONTAP Mediator IP address.

sm.mediator.unreachable

Severity
ALERT

Description
This message occurs when the ONTAP® Mediator is unreachable on a cluster. As a result, SnapMirror® failover is not possible.

Corrective Action
Check the network connectivity to the ONTAP Mediator by using the "network ping" and "network traceroute" commands. If the issue persists, remove the configuration of the current ONTAP Mediator by using the "snapmirror mediator remove" command. Reconfigure access to the ONTAP Mediator by using the "snapmirror mediator add" command.

Syslog Message
ONTAP Mediator (IP: %s) is unreachable from cluster %s.

Parameters
ipAddress (STRING): IP address of the ONTAP Mediator.
cluster (STRING): Name of the cluster that is attempting to access the ONTAP Mediator.

sm.mediator.unusable

Severity
ERROR

Description
This message occurs when ONTAP® Mediator is unusable due to a corrupted mediator server database. If ONTAP Mediator is in this state, SnapMirror® failover will not be possible.

Corrective Action

Remove ONTAP Mediator by using the "snapmirror mediator remove" command, and then add it again by using the "snapmirror mediator add" command.

Syslog Message

ONTAP Mediator is unusable on cluster '%s' having mediator IP address '%s'.

Parameters

cluster (STRING): Cluster name on which ONTAP Mediator is unusable.
ipAddress (STRING): ONTAP Mediator IP address.

sm.no events

sm.no.metadata.objstore

Severity

ALERT

Description

This message occurs when a SnapMirror® catalog metadata transfer is attempted and a SnapMirror object store configuration with "usage" of "metadata" is not configured on the system. Catalog metadata transfers will fail until an appropriate object store is configured.

Corrective Action

Either add "usage" of "metadata" to an existing SnapMirror object store configuration or create a new SnapMirror object store configuration with "usage" of "metadata". Use the "snapmirror object-store config modify -usage" command or the "snapmirror object-store config create" command to modify or create an object store configuration.

Syslog Message

No SnapMirror object store configuration with "usage" of "metadata" found for catalog metadata transfer to destination '%s'. Catalog metadata transfers will fail until an appropriate object store is configured.

Parameters

dst_path (STRING): Destination of the SnapMirror relationship.

sm.slc events

sm.slc.async.resync.preserve

Severity

NOTICE

Description

This message occurs when a SnapMirror® resync operation detects data divergence between the common snapshot and the AFS on a resync destination volume where the destination volume is a SnapLock Compliance volume and the SnapMirror relationship is of "async-mirror" policy type. The resync operation preserves the data changes in a locked snapshot for the duration of the current volume expiry time. If the volume expiry time is in the past or has not been set, then the snapshot is locked for a duration of 30 days. The common snapshot is also locked for the same duration.

Corrective Action

(None).

Syslog Message

SnapMirror resync operation created a new snapshot '%s' to preserve the data changes in the AFS with reference to common snapshot '%s' at destination SnapLock Compliance volume '%s'. Both snapshots are locked for the duration of the current volume expiry time '%s'. If the volume expiry time is in the past or has not been set, then the snapshots are locked for a duration of 30 days.

Parameters

new_snap_name (STRING): Name of the new snapshot; where the data changes are preserved.
common_snap_name (STRING): Name of the common snapshot on the destination volume.
dst_path (STRING): Destination volume of the SnapMirror relationship.
dst_vol_expiry (STRING): Expiry time of the destination volume.
relationship_id (STRING): UUID of the SnapMirror relationship.

sm.syncmirror events

sm.syncmirror.out.of.sync

Severity

ALERT

Description

This message occurs when a sync granular CG relationship transitions from in-sync status to out-of-sync status.

Corrective Action

Verify network connections between the primary cluster and the secondary cluster. Check for error information in the "snapmirror show" command output for the relationship. Quiesce the relationship if the condition cannot be addressed immediately.

Syslog Message

Sync granular CG relationship with source path %s and destination path %s has transitioned from in-sync to out-of-sync for the follow reason: %s.

Parameters

src_path (STRING): Source path of the sync granular CG relationship that transitioned from in-sync to out-of-sync.
dst_path (STRING): Destination path of the sync granular CG relationship that transitioned from in-sync to out-of-sync.
reason (STRING): Reason that the relationship went out-of-sync.

sm.vfiler events

SM.vfiler.config.move.warn

Severity

NOTICE

Description

This message occurs when movement of the SnapMirror® status configuration from 'from' vFiler to 'to' vFiler fails. The SnapMirror or SnapVault® status might show the wrong status entries because the status entries are not copied.

Corrective Action

(None).

Syslog Message

Movement of SnapMirror status configuration failed while moving volumes between vFiler %s to vFiler %s. SnapMirror or SnapVault status might show the wrong status entries.

Parameters

from_vfiler (STRING): vFiler(tm) from which resources are being moved.
to_vfiler (STRING): vFiler to which resources are being moved.

sm.xfer events

sm.xfer.fail.del.snap

Severity

ERROR

Description

This message occurs when deletion of a snapshot on the destination volume fails, and therefore a subsequent transfer exceeds the maximum supported snapshot count for the vault destination.

Corrective Action

Manually delete the snapshots from the destination volume and reissue the failed SnapMirror command.

Syslog Message

Unable to delete snapshot '%s' from destination volume '%s' of the relationship with relationship UUID '%s' to make space for for newer snapshots.

Parameters

snap_name (STRING): Snapshot that was not deleted.
dst_path (STRING): Destination volume of the relationship.
relationship_id (STRING): UUID of the snapmirror relationship.

sm.xfer.fail.maxlim.snap

Severity

ALERT

Description

This message occurs when a SnapMirror® transfer fails because the maximum supported snapshot limit for a SnapMirror destination is reached and there is no space for a new, incoming snapshot.

Corrective Action

Reduce the "keep" count by using the "snapmirror policy modify-rule -policy [policy_name] -keep [keep_count]" command, or by manually deleting snapshots from the SnapMirror® destination.

Syslog Message

The number of snapshots on destination volume '%s' of the relationship with relationship UUID '%s' and policy '%s' has reached the maximum supported.

Parameters

dst_path (STRING): Destination volume of the relationship.
relationship_id (STRING): UUID of the snapmirror relationship.
policy_name (STRING): SnapMirror policy name.

sm.xfer.incr.snap.rename

Severity

ERROR

Description

This message occurs when an incomplete SnapMirror® operation is detected for an incremental snapshot that no longer exists on the SnapMirror® source volume. As a result, SnapMirror creates a snapshot with the name "snapmirror_vlt_xfer_recovery" and requires a SnapMirror Resync operation to be performed on the SnapVault relationship to resume data protection.

Corrective Action

Resume data protection either by retaining or deleting the snapshot Use the 'snapmirror resync -preserve' to retain it or use the 'snapmirror resync' command to delete it.

Syslog Message

An incomplete SnapMirror operation was detected for an incremental snapshot that no longer exists on the source volume '%s'. The data transfer for the incremental snapshot was completed but the snapshot on the vault destination '%s' was not created. Instead, a snapshot with the name "snapmirror_vlt_xfer_recovery" was created.

Parameters

src_path (STRING): Source volume of the relationship.
dst_path (STRING): Destination volume of the relationship.

sm.xfer.no.new.snap

Severity

INFORMATIONAL

Description

This message occurs when a SnapMirror® update does not find any new snapshots to transfer. This can happen when none of the newer snapshots on the source has a SnapMirror® label that matches a SnapMirror policy.

Corrective Action

Check that the SnapMirror label from the snapshot policy matches SnapMirror policy rules.

Syslog Message

SnapMirror update did not find any new snapshots to transfer from the source volume '%s' of the relationship with relationship UUID '%s'.

Parameters

src_path (STRING): Source volume of the SnapMirror relationship.
relationship_id (STRING): UUID of the snapmirror relationship.

sm.xfer.same.name.snap.dst

Severity

ERROR

Description

This message occurs when a snapshot was not transferred from the source volume to the destination volume during a snapmirror transfer because a snapshot with the same name already exists in the destination volume.

Corrective Action

Rename the snapshot in the source volume to a name that does not match the name of any snapshot in the destination volume. Then, wait for the next scheduled update or trigger a manual snapmirror update.

Syslog Message

Snapshot "%s" was not transferred from the source volume "%s" to the destination volume "%s" because the destination volume has a snapshot with the same name.

Parameters

snap_name (STRING): Name of the snapshot that was not transferred.
src_path (STRING): Source volume of the relationship.
dst_path (STRING): Destination volume of the relationship.

sm.xfer.warn.limit

Severity

ERROR

Description

This message occurs when a SnapMirror® transfer receives a warning when it is approaching the "keep" count of a particular SnapMirror® relationship.

Corrective Action

Increase the "keep" count to transfer more snapshots with the same label using the following command: snapmirror policy modify-rule -policy [policy_name] -keep [keep_count]

Syslog Message

Warnings issued for SnapMirror relationship with source volume '%s' and destination volume '%s' with relationship UUID '%s' : %s

Parameters

src_path (STRING): Source volume of the relationship.
dst_path (STRING): Destination volume of the relationship.
relationship_id (STRING): UUID of the snapmirror relationship.
warn_str (STRING): SnapMirror transfer warning.

sm.xfer.warn.snapshot.count.limit

Severity

ERROR

Description

This message occurs during a SnapMirror® transfer, when the snapshot count limit is reached for the SnapMirror relationship between the indicated source and destination volumes.

Corrective Action

Delete some snapshots from the destination volume to create space for new snapshots to be transferred to it.

Syslog Message

Snapshot count limit for SnapMirror relationship with source volume '%s' and destination volume '%s' with relationship UUID '%s' has been reached : %s

Parameters

src_path (STRING): Source volume of the SnapMirror relationship.
dst_path (STRING): Destination volume of the SnapMirror relationship.
relationship_id (STRING): UUID of the snapmirror relationship.
warn_str (STRING): SnapMirror transfer warning.

smbc events

smbc.aufo events

smbc.aufo.completed

Severity

NOTICE

Description

This message occurs when the SnapMirror® active sync automatic unplanned failover operation completes.

Corrective Action

(None).

Syslog Message

SnapMirror automatic failover completed. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.aufo.during.expand

Severity

NOTICE

Description

This message occurs when a SnapMirror® active sync automatic unplanned failover operation starts while a SnapMirror® active sync expand operation is in progress. The new volumes of the consistency group that are going through the expand operation do not participate in the failover and remain as data protection (DP) after completion of failover.

Corrective Action

(None).

Syslog Message

Automatic unplanned failover has started on the SnapMirror® active sync relationship while the relationship is expanding. The new volumes of the consistency group that are going through the expand operation do not participate in the failover and remain as DP after completion of failover.

Parameters

dstpath (STRING): Path name for the destination consistency group of SnapMirror® active sync relationship.

smbc.aufo.failed

Severity

ERROR

Description

This message occurs when the SnapMirror® active sync automatic unplanned failover operation fails.

Corrective Action

Perform "snapmirror delete -destination-path destination_path" followed by "snapmirror break" on the volumes.

Syslog Message

SnapMirror automatic failover failed. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.aufo.failover.incapable

Severity

ERROR

Description

This message occurs when the SnapMirror® active sync automatic unplanned failover operation fails because the destination site is not failover capable.

Corrective Action

Before applying corrective action, the User must ensure that the primary/master copy is unavailable, otherwise the assumption is that Master copy is actively being used by the Application workload. Perform "snapmirror delete -destination-path destination_path" followed by "snapmirror break" on the volumes.

Syslog Message

SnapMirror automatic failover encountered a failure because the site with destination path "%s" is not failover-capable.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.aufo.io.outage.complete

Severity

NOTICE

Description

This message occurs when I/O can resume after an automatic unplanned failover of a SnapMirror® active sync relationship.

Corrective Action

(None).

Syslog Message

In the automatic unplanned failover of the SnapMirror® active sync relationship with destination path %s and relationship-ID %s, I/O disruption started at %s and lasted for %u msecs. Mediator Agent processing started at %s and lasted for %u msecs.

Parameters

dstpath (STRING): Destination path of the SnapMirror® active sync relationship.
cg_rel_id (STRING): ID of the SnapMirror® active sync relationship.
io_outage_start_time (STRING): I/O disruption start time.
io_outage_latency (LONGINT): I/O disruption window (msecs).
tba_trigger_start_time (STRING): Mediator Agent processing start time.
tba_trigger_latency (LONGINT): Mediator Agent processing window (msecs).

smbc.aufo.queued

Severity

NOTICE

Description

This message occurs when the SnapMirror® active sync relationship automatic unplanned failover operation is queued.

Corrective Action

(None).

Syslog Message

SnapMirror® active sync automatic unplanned operation failover queued. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.aufo.start

Severity

NOTICE

Description

This message occurs when the SnapMirror® active sync automatic unplanned failover operation starts.

Corrective Action

(None).

Syslog Message

SnapMirror automatic failover started. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.avail events

smbc.avail.aufoDisabled

Severity

ERROR

Description

This message occurs when the primary-bias state is set for the secondary endpoints of the SnapMirror® active sync relationships because both of the SnapMirror® active sync clusters lose connectivity to the ONTAP Mediator. It prevents an automatic unplanned failover operation on the secondary endpoints.

Corrective Action

Check the network connection and restore the access to the ONTAP Mediator.

Syslog Message

Primary-bias state is set for the secondary endpoints of the SnapMirror® active sync relationships. ONTAP Mediator IP: "%s", Peer cluster: "%s".

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
peerCluster (STRING): Peer cluster name.

smbc.avail.aufoEnabled

Severity

NOTICE

Description

This message occurs when the primary-bias state is cleared for the secondary endpoints of the SnapMirror® active sync relationships. It resumes the ONTAP Mediator assisted automatic unplanned failover operation on secondary endpoints.

Corrective Action

(None).

Syslog Message

Primary-bias state is cleared for the secondary endpoints of the SnapMirror® active sync relationships. ONTAP Mediator IP: "%s", Peer cluster: "%s".

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
peerCluster (STRING): Peer cluster name.

smbc.avail.primaryBias

Severity

ERROR

Description

This message occurs when the primary-bias state is set for the primary endpoints of the SnapMirror® active sync relationships because both of the SnapMirror® active sync clusters lose connectivity to the ONTAP Mediator. It allows primary endpoints to drive the consensus locally without depending on the ONTAP Mediator.

Corrective Action

Check the network connection and restore the access to the ONTAP Mediator.

Syslog Message

Primary-bias state is set for the primary endpoints of the SnapMirror® active sync relationships. ONTAP Mediator IP: "%s", Peer cluster: "%s".

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
peerCluster (STRING): Peer cluster name.

smbc.avail.primaryBiasNoMed

Severity

NOTICE

Description

This message occurs when the primary-bias state is set for the endpoints of the SnapMirror active sync relationships because the ONTAP Mediator is not configured between the cluster pair. It allows the primary endpoints of the SnapMirror active sync relationships to drive the I/O serving consensus without depending on the peer cluster when there is a network partition between the cluster pair.

Corrective Action

(None).

Syslog Message

Primary-bias state is set for the endpoints of the SnapMirror active sync relationships. Peer cluster: %s.

Parameters

peerCluster (STRING): Peer cluster name.

smbc.avail.primaryBiasRemove

Severity

NOTICE

Description

This message occurs when the primary-bias state is removed for the endpoints of the SnapMirror active sync relationships because the ONTAP Mediator is not configured between the cluster pair, and one or both of the clusters are running an ONTAP version older than 9.15.1. The primary endpoints are required to communicate to the peer cluster to establish the I/O serving consensus when there is a network partition between the cluster pair.

Corrective Action

(None).

Syslog Message

Primary-bias state is removed for the endpoints of the SnapMirror active sync relationships. Peer cluster: %s.

Parameters

peerCluster (STRING): Peer cluster name.

smbc.avail.primaryBiasReset

Severity

NOTICE

Description

This message occurs when the primary-bias state is cleared for the primary endpoints of the SnapMirror® active sync relationships. It resumes the three-way quorum involving the ONTAP Mediator and peer cluster to derive consensus.

Corrective Action

(None).

Syslog Message

Primary-bias state is cleared for the primary endpoints of the SnapMirror® active sync relationships. ONTAP Mediator IP: "%s", Peer cluster: "%s".

Parameters

ipAddress (STRING): ONTAP Mediator IP address.
peerCluster (STRING): Peer cluster name.

smbc.cg events

smbc.cg.info.read.failed

Severity

ERROR

Description

This message occurs when read of Consistency Group aggregate information entry fails for the SnapMirror® active sync volume which results into IO disruption.

Corrective Action

To recover from this situation, perform below steps : Run wafliron on the aggregate hosting the SnapMirror® active sync volume which failed during mount time. Run resync on all the SnapMirror® active sync CG relationships present in the aggregate on which wafliron executed.

Syslog Message

Read of Consistency Group aggregate information entry failed for source volume DSID: "%llu" during "%s" because Consistency Group aggregate information file is corrupted.

Parameters

source_volume_dsid (LONGINT): Source Volume DSID
operation (STRING): Name of operation

smbc.cg.info.update.failed

Severity

ERROR

Description

This message occurs when add or delete of Consistency Group aggregate information entry fails for the SnapMirror® active sync volume which results into IO disruption.

Corrective Action

To recover from this situation, perform below steps : Run wafliron on the aggregate hosting the SnapMirror® active sync volume which failed during mount time. Run resync on all the SnapMirror® active sync CG relationships present in the aggregate on which wafliron executed.

Syslog Message

"%s" of Consistency Group aggregate information entry failed for source volume DSID: "%llu" because Consistency Group aggregate information file is corrupted.

Parameters

metafile_update_type (STRING): Name of aggregate metafile update type
volume_dsid (LONGINT): Volume DSID

smbc.fanout events

smbc.fanout.svms.not.peered

Severity

ERROR

Description

This message occurs when ONTAP® detects that source volumes of SnapMirror® active sync relationships are involved in an async fanout protection, but the two destination storage virtual machine (SVM)s are not peered with each other. This prevents an automatic reconfiguration of the async protection when the source volumes failover.

Corrective Action

1. Use the "cluster peer show" command to verfiy that the SnapMirror fanout destination and SnapMirror active sync destination clusters are peered. 2. Use the "cluster peer create" command on both clusters to peer the clusters together. 3. Use the "vserver peer show" command to verify that the SnapMirror fanout destination and SnapMirror active sync destination SVMs are peered. 4. Use the "vserver peer create" and "vserver peer accept" commands to peer the SVMs together.

Syslog Message

SnapMirror fanout destination SVM "%s" and SnapMirror active sync destination SVM "%s" are not peered. Use command "cluster peer show" to verify if SnapMirror fanout destination cluster "%s" and SnapMirror active sync destination cluster "%s" are peered.

Parameters

asyncDstSvmName (STRING): SnapMirror fanout destination SVM name.
syncDstSvmName (STRING): SnapMirror active sync destination SVM name.
asyncDstClusterName (STRING): SnapMirror fanout destination cluster name.
syncDstClusterName (STRING): SnapMirror active sync destination cluster name.

smbc.pfo events

smbc.pfo.completed

Severity

NOTICE

Description

This message occurs when the SnapMirror® active sync planned failover operation completes.

Corrective Action

(None).

Syslog Message

SnapMirror® active sync planned failover operation completed. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.pfo.failed

Severity

ERROR

Description

This message occurs when the SnapMirror® active sync planned failover operation fails.

Corrective Action

Determine the cause of the failure by using the "snapmirror failover show -fields error-reason" command. After addressing the cause, retry the "snapmirror failover start -destination-path destination_path" command.

Syslog Message

SnapMirror® active sync planned failover operation failed. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.pfo.io.outage.compl.dst

Severity

NOTICE

Description

This message occurs when the secondary (erstwhile) side conversion completes after a planned failover operation of a SnapMirror® active sync relationship.

Corrective Action

(None).

Syslog Message

In the planned failover of the SnapMirror® active sync relationship with destination path %s and relationship-ID %s, the destination side I/O disruption started at %s and lasted for %u msecs.

Parameters

dstpath (STRING): Destination path of the SnapMirror® active sync relationship.
cg_rel_id (STRING): ID of the SnapMirror® active sync relationship.
start_time (STRING): I/O disruption start time.
latency (LONGINT): I/O disruption window (msecs).

smbc.pfo.io.outage.compl.src

Severity

NOTICE

Description

This message occurs when the primary (erstwhile) side conversion completes after a planned failover operation of a SnapMirror® active sync relationship and IO outage completes as the Report Target Port Group(RTPG) is consistent.

Corrective Action

(None).

Syslog Message

In the planned failover of the SnapMirror® active sync relationship with destination path %s and relationship-ID %s, the source side I/O disruption started at %s and lasted for %u msecs.

Parameters

dstpath (STRING): Destination path of the SnapMirror® active sync relationship.
cg_rel_id (STRING): ID of the SnapMirror® active sync relationship.
start_time (STRING): I/O disruption start time.
latency (LONGINT): I/O disruption window (msecs).

smbc.pfo.start

Severity

NOTICE

Description

This message occurs when the SnapMirror® active sync planned failover operation starts.

Corrective Action

(None).

Syslog Message

SnapMirror® active sync planned failover operation started. Destination path: %s.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smbc.policy events

smbc.policy.reassign

Severity

NOTICE

Description

This message occurs when the system detects during a flip on a SnapMirror® Sync relationship that the custom policy has been deleted from the source cluster and automatically falls back to the system policy of type "automated-failover".

Corrective Action

(None).

Syslog Message

The custom policy has been deleted from the source cluster so the SnapMirror Sync relationship with destination path: %s has been assigned "AutomatedFailover" policy.

Parameters

dstpath (STRING): Path name of the destination group of the SnapMirror® active sync relationship.

smc events

smc.cg events

smc.cg.snap.ren.revert.fail

Severity

ERROR

Description

This message occurs when a FlexGroup® snapshot rename fails and the revert to the original snapshot name also fails.

Corrective Action

Manually rename the snapshot by issuing the "snapshot rename" command.

Syslog Message

Unable to revert snapshot name from the new name, "%s" to oldname "%s" in volume "%s".

Parameters

newsnapname (STRING): New snapshot name.
origsnapname (STRING): Original snapshot name.
dstpath (STRING): Path name of the destination volume to which the snapshot rename was issued.
error (INT): Error code of the failure.

smc.dst events

smc.dst.snapshot.op

Severity

NOTICE

Description

This message occurs when SnapMirror creates or deletes a snapshot with a SnapMirror label on a FlexVol destination volume of a SnapMirror® relationship.

Corrective Action

(None).

Syslog Message

SnapMirror snapshot %s %s on destination volume %s, label %s, instance UUID %s, version UUID %s, relationship UUID %s.

Parameters

operation (STRING): Snapshot operation either "create" or "delete".
snapname (STRING): Snapshot name.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
snaplabel (STRING): SnapMirror label of the snapshot.
instance_uuid (STRING): Instance UUID of the snapshot.
version_uuid (STRING): Version UUID of the snapshot.

relationshipID (STRING): UUID of the SnapMirror relationship.

smc.frest events

smc.frest.snap.delete.fail

Severity

ERROR

Description

This message occurs when a SnapMirror file restore operation fails to delete a local file restore snapshot on the destination volume.

Corrective Action

Manually delete snapshot by issuing snapshot delete command.

Syslog Message

Unable to delete snapshot '%s' from volume '%s'.

Parameters

snapname (STRING): Snapshot that was not deleted.
dstpath (STRING): Path name of the destination volume to which restore was issued.

smc.restore events

smc.restore.src.cleanup.fail

Severity

ERROR

Description

This message occurs when a SnapMirror restore operation or a SnapMirror restore cleanup operation fails to cleanup a SnapMirror restore source relationship information. This issue can happen regardless of the success or failure of the SnapMirror operation.

Corrective Action

If the SnapMirror restore operation or the SnapMirror restore cleanup operation has failed, check the reason for the error, take action accordingly, and then run the command again. If the operation has succeeded, run the "snapmirror list-destinations -type RST" command on the cluster containing the source information for the SnapMirror restore relationship, and identify the corresponding relationship. Then remove the stale entry by running the "snapmirror release -destination-path <dst_path> -source-path <src_path>" command.

Syslog Message

Restore of volume '%s' from volume '%s' with relationship UUID '%s' failed to remove source information for the relationship.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror restore relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror restore relationship.
relationshipID (STRING): Relationship UUID.

smc.snap events

smc.snap.upd.retention.fail

Severity

ERROR

Description

This message occurs when a SnapMirror operation fails to copy the retention period of a snapshot from the source endpoint to the destination endpoint because the ONTAP® version of the destination cluster does not support copying the retention period. This issue can happen regardless of the success or failure of the SnapMirror operation.

Corrective Action

Check the ONTAP version of the destination cluster using the command "system image show -node <node_name> -iscurrent true -fields version". If the ONTAP version of the destination cluster is earlier than ONTAP 9.12.1 then copying the retention period is not supported on the destination cluster. The destination cluster should be upgraded to ONTAP 9.12.1 or later to copy the retention period of snapshots from the source to the destination.

Syslog Message

The SnapMirror relationship with relationship UUID "%s" will not copy the retention period of a snapshot from the source volume "%s" to the destination volume "%s" because the ONTAP version of the destination cluster does not support copying the retention period.

Parameters

relationshipID (STRING): Relationship UUID.
srcpath (STRING): Path name of the source endpoint of the SnapMirror relationship.
dstpath (STRING): Path name of the destination endpoint of the SnapMirror relationship.

smc.snapmir events

smc.snapmir.dst.invalidType

Severity

ERROR

Description

This message occurs when the destination volume of a SnapMirror® relationship is not a Data Protection (DP) type and a snapmirror initialize operation is attempted. A volume must be of a DP type to accept a snapmirror initialize operation.

Corrective Action

For ASA r2 systems, contact NetApp technical support for assistance to resolve this internal error. For all other systems: Use a different volume of type DP, or use the "volume create" command to create a new volume of type DP to use as a destination of the SnapMirror relationship. You cannot modify the type of a volume using the 'volume modify' command.

Syslog Message

Destination volume '%s' of a SnapMirror relationship is not a DP type. Relationship UUID "%s".

Parameters

> **dstpath** (STRING): Path name of the destination volume of the SnapMirror relationship.
> **relationshipID** (STRING): Universal unique identifier(UUID) of the SnapMirror relationship.

smc.snapmir.frest.clean.fail

Severity

> ERROR

Description

> This message occurs when SnapMirror® fails to clean up fenced files and file restore restartability information on a volume and no more retries will be attempted.

Corrective Action

> Check the reason for the error, take action accordingly and issue 'snapmirror restore -file-restore-clean-up true' on the volume in diagnostic mode.

Syslog Message

> File restore clean up on volume '%s' failed with error '%s'.

Parameters

> **dstpath** (STRING): Path name of the volume.
> **error** (STRING): Error message.

smc.snapmir.init.fail

Severity

> ERROR

Description

> This message occurs when a SnapMirror® 'initialize' command fails and no more retries will be attempted.

Corrective Action

> Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

> Initialize from source volume '%s' to destination volume '%s' failed with error '%s'. Relationship UUID '%s'.

Parameters

> **srcpath** (STRING): Path name of the source volume of the SnapMirror relationship.
> **dstpath** (STRING): Path name of the destination volume to which the initialize failed.
> **error** (STRING): Error message.
> **relationshipID** (STRING): Relationship UUID.

smc.snapmir.lrb.auto.resync

Severity

> INFORMATIONAL

Description

This message occurs when the latest snapshot on the SnapMirror® or SnapVault® destination is not the base snapshot and the source volume is read-only. Generally this is a rare event and a local-rollback-based SnapMirror resync will be attempted to automatically recover from this situation. If this event occurs frequently, it is likely that the snapshot policy on the primary volume in the cascade is deleting snapshots too soon.

Corrective Action

Check the snapshot policy on the primary (read-write) volume and increase the retention count of the snapshots that must be backed up all the way to the destination.

Syslog Message

Latest snapshot %s on the destination %s is not the base snapshot. Attempting a local rollback based SnapMirror resync to correct this issue.

Parameters

snap_name (STRING): Name of the latest snapshot on the SnapMirror or SnapVault destination.
dst_path (STRING): Destination volume of the SnapMirror/SnapVault relationship.

smc.snapmir.partnr.noconnect

Severity

ERROR

Description

This message occurs when a SnapMirror® Sync relationship cannot detect the heartbeat signal from the partner node.

Corrective Action

Check the network connection between the source and destination volumes by using the "net interface show -role intercluster -status-admin up" command.

Syslog Message

Source volume "%s" and destination volume "%s" with relationship UUID "%s" lost heartbeat to partner node.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

smc.snapmir.release.fail

Severity

ERROR

Description

This message occurs when a SnapMirror® 'release' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Release on the source volume '%s' for destination volume '%s' failed with error '%s'. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the resync failed.
error (STRING): Error message.
relationshipID (STRING): Relationship UUID.

smc.snapmir.restore.fail

Severity

ERROR

Description

This message occurs when a SnapMirror® 'restore' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Restore of volume '%s' from volume '%s' failed with error '%s'. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the resync failed.
error (STRING): Error message.
relationshipID (STRING): Relationship UUID.

smc.snapmir.resync.fail

Severity

ERROR

Description

This message occurs when a SnapMirror® 'resync' command fails and no more retries will be attempted.

Corrective Action

Check the reason for the error, take action accordingly, and issue the command again.

Syslog Message

Resync from source volume '%s' to destination volume '%s' failed with error '%s'. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the resync failed.
error (STRING): Error message.
relationshipID (STRING): Relationship UUID.

smc.snapmir.schd.trans.overrun

Severity

ERROR

Description

This message occurs when a scheduled SnapMirror® transfer overruns the schedule window.

Corrective Action

Check the reason for the schedule overrun and take action accordingly.

Syslog Message

Scheduled transfer from source volume '%s' to destination volume '%s' is taking longer than the schedule window. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the scheduled transfer.
relationshipID (STRING): Relationship UUID.

smc.snapmir.suspending.io

Severity

ALERT

Description

This message occurs when SnapMirror® I/O has been suspended, due either to a loss of connectivity between the SnapMirror Mediator software and partner, or to a denial of network access by the Mediator software.

Corrective Action

Check the status of the connection to the Mediator software by using the "net interface show -role intercluster -status-admin up" command.

Syslog Message

Suspending I/O as with relationship UUID "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.
error_msg (STRING): Description of the error responsible for the suspension.

smc.snapmir.tb.noconnect

Severity

ERROR

Description

This message occurs when an ONTAP® node is not reachable from the SnapMirror® Mediator software.

Corrective Action

Check the network connection between the source and destination volumes, by using the "network ping -node node_name" command.

Syslog Message

Connection lost to the Mediator software from node: %s, with relationship UUID "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.
node (STRING): Node name.
mediator_id (STRING): IP of the Mediator.

smc.snapmir.unexpected.err

Severity

ERROR

Description

This message occurs when a SnapMirror® operation encounters an unexpected error.

Corrective Action

Retry the SnapMirror operation. If the problem persists, contact NetApp technical support.

Syslog Message

SnapMirror unexpected error '%s'. Relationship UUID '%s'. Operation UUID '%s'.

Parameters

error (STRING): Error message.
relationshipID (STRING): Relationship UUID.
operationID (STRING): Operation UUID.

smc.snapmir.unsupp.nvmf

Severity

ERROR

Description

This message occurs when a SnapMirror® operation encounters an NVMe Namespace that is unsupported on the destination side.

Corrective Action

Upgrade the destination to a version that supports NVMe Namespace objects.

Syslog Message

SnapMirror unsupported NVMe Namespace. Relationship UUID '%s'.

Parameters

relationshipID (STRING): Relationship UUID.

smc.snapmir.unsupp.nvmf.ns

Severity

ERROR

Description

This message occurs when a SnapMirror® operation encounters a 512-byte block size NVMe namespace that is unsupported on the destination.

Corrective Action

Upgrade the destination to a version that supports 512-byte block size NVMe namespace objects.

Syslog Message

SnapMirror unsupported 512-byte block size NVMe namespace. Relationship UUID '%s'.

Parameters

relationshipID (STRING): Relationship UUID.

smc.snapmir.update.fail

Severity

ERROR

Description

This message occurs when a scheduled SnapMirror® transfer fails.

Corrective Action

Check the snapmirror_error log in the destination filer and take action accordingly.

Syslog Message

Snapmirror update from source volume '%s' to destination volume '%s' failed with error '%s'. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the snapmirror transfer failed.
error (STRING): Error message.
relationshipID (STRING): Relationship UUID.

smc.snapmirror events

smc.snapmirror.xfer.complete

Severity

INFORMATIONAL

Description

This message occurs when a SnapMirror® transfer completes successfully.

Corrective Action

(None).

Syslog Message

Snapmirror transfer from source volume '%s' to destination volume '%s' is successful. '%s'. Relationship UUID '%s'.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume to which the snapmirror transfer failed.
info (STRING): Transfer information.
relationshipID (STRING): Relationship UUID.

smc.tot events

smc.tot.bytes.write.fail

Severity

NOTICE

Description

This message occurs when SnapMirror is unable to update the latest total transfer bytes value of the SnapMirror relationship. The total transfer bytes for the relationship might be incorrect.

Corrective Action

(None).

Syslog Message

SnapMirror is unable to update the latest total transfer bytes value for the relationship with relationship UUID "%s" and destination "%s".

Parameters

relationshipID (STRING): Relationship UUID.
dstPath (STRING): Path name of the destination endpoint of the SnapMirror relationship.

smc.vlt events

smc.vlt.cascade.xfer.fail

Severity

ERROR

Description

This message occurs when the transfer for the SnapVault® relationship replicating the read-only source volume fails because the SnapMirror® policy prevents it from transferring the exported snapshot from the source. Generally this happens when the "keep" value of the rule associated with the SnapMirror label of the exported snapshot is reached and the "preserve" flag is set to "true".

Corrective Action

Modify the rule for the SnapMirror policy associated with the SnapMirror label of the exported snapshot on the source volume and either set the "preserve" flag to "false" or increase the "keep" count.

Syslog Message

Unable to transfer any snapshots to %s because the exported snapshot %s with snapmirror-label %s has a rule whose "keep" value has been reached and the "preserve" flag is set to "true".

Parameters

dst_path (STRING): Destination volume of the SnapVault relationship.
snap_name (STRING): Name of the exported snapshot on the source volume.
snapmirror_label (STRING): SnapMirror label associated with the exported snapshot.

sms events

sms.cg events

sms.cg.cascade.not.supported

Severity

ERROR

Description

This message occurs when a SnapMirror® Synchronous Automated Failover relationship is part of a cascade configuration. Cascade configuration is not supported for SnapMirror® Synchronous Automated Failover relationships.

Corrective Action

Delete the Asynchronous cascade leg from the destination of the SnapMirror® Synchronous Consistency Group relationship. Attach the cascade Leg to the source of SnapMirror® Synchronous Consistency Group relationship to re-establish the 3 site DR.

Syslog Message

The source of the relationship %s (msid:%llu and vserver_uuid:%s) is part of of SnapMirror® Synchronous Automated Failover destination relationship. Since cascade is not supported for SnapMirror® Synchronous Automated Failover relationship, failing the operation on the cascade leg.

Parameters

RelationshipId (STRING): UUID of the SnapMirror Relationship.
volumeMSID (LONGINT): Volume MSID.
vserverUUID (STRING): vserver instance UUID.

sms.clone events

sms.clone.request.disallow

Severity

NOTICE

Description

This message occurs when SnapMirror® Synchronous fails a clone request because the relation is temporarily in a state that does not permit clone replication.

Corrective Action

(None).

Syslog Message

Clone replication not permitted while in transitioning state.

Parameters

(None).

sms.common events

sms.common.snapshot.failed

Severity

ERROR

Description

This message occurs when there is a failure in creating a common snapshot. The SnapMirror® Sync relationship continues to be in "in-sync" status. The latest common snapshot is used for recovery in case the relationship status changes to "out-of-sync." The common snapshot should be created at scheduled intervals to decrease the recovery time of "out-of-sync" relationships.

Corrective Action

Create a common snapshot manually by using the "snapmirror update" command at the destination volume.

Syslog Message

Creating a common snapshot for source volume "%s" and destination volume "%s" with relationship UUID "%s" has failed due to the following reason: "%s". Elapsed time since the latest successful common snapshot is %s.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.
error_msg (STRING): Error that prevented the common snapshot from being created.
css_fail_interval (STRING): Interval between the last successful common snapshot creation and recent failure to create a common snapshot.

sms.failed events

sms.failed.precheck

Severity

ERROR

Description

This message occurs when a SnapMirror® Sync relationship cannot be established due to precheck failures.

Corrective Action

Monitor the status of the SnapMirror Sync relationship by using the "snapmirror show" command. Retry the SnapMirror Sync operation after resolving the issue that caused the precheck failure.

Syslog Message

SnapMirror Sync operation failed for source volume "%s" and destination volume "%s" with relationship UUID "%s" due to the following reason: "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.

relationship_id (STRING): Relationship UUID.
error_msg (STRING): Reason for the failure.

sms.fanout events

sms.fanout.comm.snap.deleted

Severity

ALERT

Description

This message occurs when an older snapshot is deleted as part of a SnapMirror® Synchronous resynchronize or update (common snapshot) operation, which could lead to a "no common snapshot scenario" between the synchronous and asynchronous disaster recovery (DR) copies that share the same source volume. If there is no common snapshot between the synchronous and asynchronous DR copies, then a re-baseline will need to be performed during a disaster recovery.

Corrective Action

You can ignore this message if there is no asynchronous relationship configured for the synchronous source volume. If there is an asynchronous relationship configured, then update the asynchronous relationship by using the "snapmirror update" command. The SnapMirror update operation will transfer the snapshots that will act as common snapshots between the synchronous and asynchronous destinations.

Syslog Message

SnapMirror Synchronous operation '%s' for relationship '%s' has cleaned up some of the old base snapshots between the synchronous source and synchronous destination, which could result in no common snapshot existing between the synchronous and asynchronous destinations.

Parameters

sm_operation (STRING): SnapMirror Synchronous operation.
relationship_id (STRING): Relationship UUID.

sms.giveback events

sms.giveback.veto.override

Severity

NOTICE

Description

This message occurs during an SFO aggregate giveback, when the SnapMirror® subsystem indicates that giveback should be vetoed but the veto was overridden by the automated nondisruptive update procedure. The automated nondisruptive update procedure verifies the expected state of the aggregate.

Corrective Action

(None).

Syslog Message

snapmirror subsystem veto was overridden during giveback operation of "%s" aggregate.

Parameters

    aggregate (STRING): Name of the aggregate.

sms.operation events

sms.operation.blacklisted

Severity

    ERROR

Description

    This message occurs when a blacklisted operation is performed on the primary volume of a SnapMirror® Sync relationship when the relationship status is "Transitioning".

Corrective Action

    Auto-resync will attempt to bring the SnapMirror Sync relationship status to "InSync". You can also use the "snapmirror resync" command to change the relationship status. Avoid issuing blacklisted operations while the relationship status is "Transitioning".

Syslog Message

    SnapMirror Sync operation encountered a failure while the relationship status is "Transitioning" for relationship UUID "%s" because blacklisted operation "%s" was performed in the "%s" state.

Parameters

    relationship_id (STRING): Relationship UUID.
    operation (STRING): Blacklisted operation that was executed during the transitioning state.
    state (STRING): Transitioning phase during which blacklisted operations are performed.

sms.qr events

sms.qr.mem.alloc.issue

Severity

    ERROR

Description

    This message occurs when wafl fails to allocate required memory for storing streams attributes information or asked buffer memory length is too less to hold all the streams attributes info, in both the cases the status of Snapmirror Synchronous relationship changes to "OutOfSync".

Corrective Action

    Monitor the SnapMirror® Synchronous relationship status using the "snapmirror show" command. If the relationship status is not "InSync", resynchronize the relationship using "snapmirror resync" command.

Syslog Message

    Wafl failed to allocate sufficient memory to hold all the streams attributes information for Snapmirror Synchronous relationship UUID: "%s" and File ID: "%s". The status of the Snapmirror Synchronous relationship will be changed to "OutOfSync".

Parameters

relationship_id (STRING): Snapmirror Relationship UUID
file_id (STRING): File id for which the wafl operation failed.

sms.qr.ops.limit.exceed

Severity

ERROR

Description

This message occurs when SnapMirror® Synchronous detects that the number of write failures on the source volume of a SnapMirror® Synchronous relationship has exceeded the threshold. This can lead to change of the relationship status from "InSync" to "OutOfSync".

Corrective Action

To recover from this situation, turn on sequential splitting in the Snapmirror® Synchronous relationship. For further information about correcting the problem, search the knowledgebase of the NetApp technical support web site for the "sms.qr.ops.limit.exceed" keyword.

Syslog Message

The number of write failures on the source volume with Dsid: "%s" of the SnapMirror® Synchronous relationship UUID: "%s" has exceeded the threshold. This may lead to change of the relationship status from "InSync" to "OutOfSync".

Parameters

source_volume_dsid (STRING): Source Volume DSID
relationship_id (STRING): Snapmirror Relationship UUID

sms.qr.streams.limit.exceed

Severity

ERROR

Description

This message occurs when the number of streams associated with a file exceeds the maximum supported number of streams by SnapMirror® Synchronous. This will change the status of the Snapmirror Synchronous relationship to "OutOfSync".

Corrective Action

Turn on sequential splitting in the SnapMirror Synchronous relationship. For further information about correcting the problem, search the knowledgebase of the NetApp technical support web site for the "sms.qr.streams.limit.exceed" keyword.

Syslog Message

Maximum number of streams for a file supported by SnapMirror Synchronous relationship exceeded for relationship UUID: "%s" and file ID: "%s". Status of the relationship will be changed to "OutOfSync".

Parameters

relationship_id (STRING): SnapMirror relationship UUID.
file_id (STRING): File ID of the file for which the number of streams exceeded the maximum.

sms.resync events

sms.resync.attempt.failed

Severity

ERROR

Description

This message occurs when a resynchronize operation between the source volume and destination volume fails. The SnapMirror® Sync relationship is in "out-of-sync" status. Data protection is impacted.

Corrective Action

Monitor SnapMirror Sync status using the "snapmirror show" command. If the auto-resync attempts fail, bring the relationship back to "in-sync" status manually by using the "snapmirror resync" command.

Syslog Message

Resynchronize operation between source volume "%s" and destination volume "%s" with relationship UUID "%s" has failed. The next auto-resync will be attempted after "%d" mins.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.
next_resync_interval (INT): Interval after which the next resync will be attempted.

sms.snap events

sms.snap.not.replicated

Severity

NOTICE

Description

This message occurs when a snapshot for SnapMirror® Synchronous relationship is not successfully replicated.

Corrective Action

(None).

Syslog Message

Snapshot '%s' is not sucessfully replicated for the relationship '%s' with source volume DSID '%llu' and path '%s'. Reason: %s.

Parameters

snapshot (STRING): Name of the snapshot to be replicated.
transferId (STRING): UUID of the SnapMirror transfer.
volumeDSID (LONGINT): Volume data set ID (DSID).
volumePath (STRING): Path of the volume.
failureReason (STRING): Reason for the failure.

sms.src events

sms.src.clear.fence.complete

Severity

NOTICE

Description

This message occurs when a SnapMirror® Synchronous operation has successfully cleared the persistent fence (read/write I/O has resumed) on the source volume.

Corrective Action

(None).

Syslog Message

Cleared persistent fence (read/write I/O has resumed) on the source volume for relationship UUID "%s" with source volume "%s" and destination volume "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

sms.src.set.fence.complete

Severity

NOTICE

Description

This message occurs when a SnapMirror® Synchronous operation has successfully set the persistent fence (prevent read/write I/O) on the source volume.

Corrective Action

(None).

Syslog Message

Set persistent fence (prevent read/write I/O) on the source volume for relationship UUID "%s" with source volume "%s" and destination volume "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

sms.status events

sms.status.in.sync

Severity

NOTICE

Description

This message occurs when a SnapMirror® Sync initialize or resynchronize operation is completed successfully, and the source volume and destination volume are in "in-sync" status.

Corrective Action

(None).

Syslog Message

Initialize or resynchronize operation was successful. Source volume "%s" and destination volume "%s" with relationship UUID "%s" are in "in-sync" status.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

sms.status.out.of.sync

Severity

ERROR

Description

This message occurs when a SnapMirror® Sync relationship changes status from "in-sync" to "out-of-sync". I/O restrictions are imposed on the source volume based on the mode of replication. For relationships with policy type "strict-sync-mirror", client read or write access to volume is prevented. Data protection is impacted.

Corrective Action

Check network connection between the source and destination volumes. Monitor the SnapMirror Sync relationship status by using the "snapmirror show" command. Auto-resync will attempt to bring the relationship back to "in-sync" status.

Syslog Message

Source volume "%s" and destination volume "%s" with relationship UUID "%s" is in "out-of-sync" status due to the following reason: "%s".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.
error_msg (STRING): Error that caused the relationship to change to "out-of-sync" status.

sms.status.out.of.sync.cg

Severity

ERROR

Description

This message occurs when a SnapMirror® active sync relationship changes status from "in-sync" to "out-of-sync". Due to this RPO=0 data protection will be disrupted.

Corrective Action

Check the network connection between the source and destination volumes. Monitor the SnapMirror® active sync relationship status by using the "snapmirror show" command on the destination, and by using the "snapmirror list-destinations" command on the source. Auto-resync will attempt to bring the relationship back to "in-sync" status. If the resync fails, verify that all the nodes in the cluster are in quorum and are healthy.

Syslog Message

Source CG "%s" and destination CG "%s" with relationship UUID "%s" is in "out-of-sync" status. Reason: "%s".

Parameters

srccgpath (STRING): Source Consistency Group (CG) path.
dstcgpath (STRING): Destination CG path.
cg_relationship_id (STRING): CG relationship UUID.
error_msg (STRING): Error that caused the relationship to change to "out-of-sync" status.

sms.transition events

sms.transition.retry

Severity

NOTICE

Description

This message occurs when a SnapMirror® initialize or resynchronize operation takes a long time to bring the relationship "in-sync" due to intermittent failure. This is not an error yet so retry has triggered. If it fails on retry, the EMS "sms.resync.attempt.failed" will be raised.

Corrective Action

(None).

Syslog Message

Initialize/Resynchronize operation between source volume "%s" and destination volume "%s" with relationship UUID "%s" is taking a long time to bring the relationship InSync due to intermittent failure causing a retry.

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

smtape events

smtape.bkp events

smtape.bkp.abort.write.err

Severity

ERROR

Description

This message occurs when an SMTape backup operation is aborted because a write to tape device fails.

Corrective Action

Make sure that the tape device does not have media errors and is writable. Check for error details in the log file at /mroot/etc/log/backup.

Syslog Message

SMTape backup session %d from %s to %s was aborted because write to output failed.

Parameters

sessionid (INT): Session ID of the SMTape operation.
srcvolpath (STRING): SMTape source volume.
tapepath (STRING): Current destination device to which backup was performed.

smtape.bkp.fail

Severity

ERROR

Description

This message occurs when an SMTape backup operation to tape fails.

Corrective Action

Check for error details in the log file at /mroot/etc/log/backup. Retry the command after resolving the error reported.

Syslog Message

SMTape backup session %d from %s to %s failed with error %s.

Parameters

sessionid (INT): Session ID of the SMTape operation.
srcvolpath (STRING): SMTape source volume.
tapepath (STRING): Current destination device to which backup was performed.
errorstring (STRING): Error string returned by SMTape.

smtape.bkp.success

Severity

NOTICE

Description

This message occurs when an SMTape backup operation to tape succeeds.

Corrective Action

(None).

Syslog Message

SMTape backup session %d from %s to tape was successful. %s, %d tape(s) written.

Parameters

sessionid (INT): Session ID of the SMTape operation.
srcvolpath (STRING): SMTape source volume.
stats (STRING): Statistics for the SMTape backup.
numtapes (INT): Number of tapes used.

smtape.bkp.tape.busy

Severity

ERROR

Description

This message occurs when an SMTape backup to tape fails because the tape device is busy.

Corrective Action

Make sure that the tape device is not being used by another application and retry the operation when it is free. Otherwise, issue the command using a tape device that is not currently in use.

Syslog Message

Tape device is busy, aborting SMTape backup session %d from %s to %s.

Parameters

sessionid (INT): Session ID of the SMTape operation.
srcvolpath (STRING): SMTape source volume.
tapepath (STRING): SMTape destination tape device.

smtape.bkp.tape.change

Severity

NOTICE

Description

This message occurs when a CLI-based SMTape backup operation to tape reaches end of tape.

Corrective Action

Load the next tape media onto a drive and position it correctly, and then issue the 'system smtape continue -session-id [session-id] -tape [tapepath]' command with the new tape path.

Syslog Message

SMTape backup session %d from %s to %s is waiting for a tape change.

Parameters

> **sessionid** (INT): Session ID of the SMTape operation.
> **srcvolpath** (STRING): SMTape source volume.
> **tapepath** (STRING): Current destination tape device to which backup was performed.

smtape.rst events

smtape.rst.abort.chksum.err

Severity

> ERROR

Description

> This message occurs when an SMTape restore operation from tape is aborted due to checksum error.

Corrective Action

> Make sure that the correct tape is loaded and the tape is positioned correctly. If the tape is corrupted, contact NetApp technical support for the best effort recovery mechanisms.

Syslog Message

> SMTape restore session %d to %s from %s was aborted due to checksum error.

Parameters

> **sessionid** (INT): Session ID of the SMTape operation.
> **dstvolpath** (STRING): SMTape destination volume.
> **tapepath** (STRING): Current source device from which restore was performed.

smtape.rst.abort.read.err

Severity

> ERROR

Description

> This messages occurs when an SMTape restore operation is aborted because a read from the tape device fails.

Corrective Action

> Make sure that the input tape device and media are readable. Check for error details in the log file at /mroot/etc/log/backup.

Syslog Message

> SMTape restore session %d to %s from %s was aborted because read from input failed.

Parameters

> **sessionid** (INT): Session ID of the SMTape operation.
> **dstvolpath** (STRING): SMTape destination volume.
> **tapepath** (STRING): Current source device from which restore was performed.

smtape.rst.fail

Severity
ERROR

Description
This message occurs when an SMTape restore operation fails.

Corrective Action
Check for error details in the log file at /mroot/etc/log/backup. Retry the command after resolving the error reported.

Syslog Message
SMTape restore session %d to %s from %s failed with error %s.

Parameters
sessionid (INT): Session ID of the SMTape operation.
dstvolpath (STRING): SMTape destination volume.
tapepath (STRING): Current source device from which restore was performed.
errorstring (STRING): Error string returned by SMTape.

smtape.rst.success

Severity
NOTICE

Description
This message occurs when an SMTape restore operation from tape succeeds.

Corrective Action
(None).

Syslog Message
SMTape restore session %d from tape to %s was successful. %s.

Parameters
sessionid (INT): Session ID of the SMTape operation.
dstvolpath (STRING): SMTape destination volume.
stats (STRING): Statistics for the SMTape restore.

smtape.rst.tape.change

Severity
NOTICE

Description
This message occurs when a CLI-based SMTape restore operation from tape reaches end of tape.

Corrective Action
Load the next tape media onto a drive and position it correctly, and then issue the 'system smtape continue -session-id [session-id] -tape [tapepath]' command with the new tape path.

Syslog Message

SMTape restore session %d from %s to %s is waiting for a tape change.

Parameters

sessionid (INT): Session ID of the SMTape operation.
tapepath (STRING): Current source tape device from which restore was performed.
dstvolpath (STRING): SMTape destination volume.

snapdiff events

snapdiff.rebl events

snapdiff.rebl.absent.allocated.block

Severity

INFORMATIONAL

Description

This message occurs when SnapDiff®, the snapshot copy differencing engine, encounters an absent allocated block. The absent allocated block is replicated to destination as raid error and Replication is unaffected by this issue.

Corrective Action

None. Zombie count of 0 is expected even when zombie processing is ongoing.

Syslog Message

Encountered an absent allocated block on inode %u in snapshot copy ID %u of volume %u Zombie processing: %u.

Parameters

inode_num (INT): Identifier of the affected file.
snap_id (INT): Identifier of the snapshot.
fsid (INT): Identifier of the volume.
zombie_processing (INT): Ongoing zombie processing.

snapdiff.rebl.BadAccessTime

Severity

NOTICE

Description

This message occurs when SnapDiff®, the snapshot copy differencing engine, encounters an invalid access time for an inode. Future accesses of the inode should not only succeed, but also reset its access time to a valid value. Replication is also unaffected by this issue.

Corrective Action

Run the (privilege: advanced) "inodepath -v volume_name inode_number" command to find the path of the affected file from the inode number, and modify the file within the Active File System. Note that file attributes captured in a snapshot copy cannot be changed.

Syslog Message

Encountered invalid access time on inode %u in snapshot ID %u of volume %u.

Parameters

inode_num (INT): Identifier of the affected file.
snap_id (INT): Identifier of the snapshot.
fsid (INT): Identifier of the volume.

snapdiff.rebl.BadModifyTime

Severity

NOTICE

Description

This message occurs when SnapDiff®, the snapshot copy differencing engine, encounters an invalid modification time for an inode. Future accesses of the inode should not only succeed, but also reset its modification time to a valid value. Replication is also unaffected by this issue.

Corrective Action

Run the (privilege: advanced) "inodepath -v volume_name inode_number" command to find the path of the affected file from the inode number, and modify the file within the Active File System. Note that file attributes captured in a snapshot copy cannot be changed.

Syslog Message

Encountered invalid modify time on inode %u in snapshot ID %u of volume %u.

Parameters

inode_num (INT): Identifier of the affected file.
snap_id (INT): Identifier of the snapshot.
fsid (INT): Identifier of the volume.

snapdiff.spinnp events

snapdiff.spinnp.abort.mgwd

Severity

NOTICE

Description

This message occurs when the system encounters an unexpected condition while computing differences between snapshots using the SnapDiff v2 API.

Corrective Action

(None).

Syslog Message

Encountered unexpected Data ONTAP error while computing differences between snapshots using the SnapDiff v2 API. SnapDiff session ID %s, FlexGroup %s, in vserver %s, with MSID %lu, diff snapshot %s, diff snapshot ID %lu, base snapshot %s, base snapshot ID %lu, current constituent DSID %lu. Error: %s

Parameters

sessionId (STRING): SnapDiff v2 session ID.
fgName (STRING): FlexGroup name.
vsName (STRING): Vserver name.
fgMsid (LONGINT): FlexGroup MSID.
diffSnapName (STRING): Diff snapshot name.
diffSnapId (LONGINT): Diff snapshot logical ID.
baseSnapName (STRING): Base snapshot name.
baseSnapId (LONGINT): Base snapshot logical ID.

curDsid (LONGINT): Current constituent DSID.
error (STRING): Error message.

snapdiff.zapi events

snapdiff.zapi.filenameUnavailable

Severity

ERROR

Description

This message occurs when the snapshot differencing engine, SnapDiff, fails to obtain an appropriate file name for the requested file access protocol. The SnapDiff session is aborted and future attempts will fail until the problem is resolved.

Corrective Action

(Call support).

Syslog Message

Failed to get an appropriate file name for the requested file access protocol for directory entry with inode %u in directory with inode %u in snapshot %u of volume %u.

Parameters

inode_num (INT): Identifier of the directory entry.
parent_inode_num (INT): Identifier of the directory.
incr_snap_id (INT): Identifier of the incremental snapshot.
fsid (INT): Identifier of the volume.
base_snap_id (INT): Identifier of the base snapshot.

snaplock events

snaplock.disk events

snaplock.disk.import.7mode

Severity

ERROR

Description

This message occurs when the configuration management detects that an older(7-Mode) version of a SnapLock® disk is attached to a system running a Data ONTAP® release that cannot support it.

Corrective Action

Remove the SnapLock® disks from the system.

Syslog Message

File system %s has SnapLock® disks. This version of Data ONTAP® does not support older(7-Mode) SnapLock® versions

Parameters

disk_info (STRING): Formatted information about the disk.
shelf (STRING): Shelf identifier where the disk is located.
bay (STRING): Disk bay within the shelf where disk is located.
vendor (STRING): Name of the vendor of the disk.
model (STRING): Model string of the disk drive.
firmware_revision (STRING): Firmware revision number of the disk.
serialno (STRING): Serial number of the disk.
disk_type (INT): Type of disk drive.
disk_rpm (STRING): Rotational speed of disk in RPM.
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk drive is installed.
site (STRING): For a MetroCluster® configuration, indicates the site ("Local" or "Remote") where the disk is located. For non-MetroCluster configurations, the site is "Local".

snaplock.disk.on.unsupported.version

Severity

ERROR

Description

This event is issued when configuration management detects that a SnapLock® disk is attached to a system running ONTAP® release which doesn't support SnapLock®.

Corrective Action

Install a version of Data ONTAP that supports SnapLock, or remove the SnapLock disks.

Syslog Message

File system %s has SnapLock disks. This version of Data ONTAP does not support SnapLock.

Parameters

disk_info (STRING): Formatted information of the disk
shelf (STRING): Shelf identifier where the disk is located
bay (STRING): Disk bay within the shelf where disk is located
vendor (STRING): Name of the vendor of the disk
model (STRING): Model string of the disk drive
firmware_revision (STRING): Firmware revision number of the disk
serialno (STRING): Serial number of the disk
disk_type (INT): Type of disk drive
disk_rpm (STRING): Rotational speed of disk in RPM
failure_reason (STRING): A text description of storage error leading to disk failure.
carrier (STRING): Unique ID of the carrier in which the disk drive is installed.
site (STRING): For a MetroCluster configuration(tm), indicates the site {Local|Remote} where the disk is located. For non-MetroCluster configurations, site is 'Local'.

snaplock.event events

snaplock.event.based.retention.op.status

Severity

NOTICE

Description

This message occurs on completion of a event based retention apply operation on a SnapLock® volume.

Corrective Action

(None).

Syslog Message

An %s operation with ID %lu ended for policy "%s" and retention period "%s" on path %s in volume %s:%s with status: "%s", details: "%s". The operation passed on %lu files, failed on %lu files, skipped %lu files and ignored %lu inodes.

Parameters

operation_type (STRING): Type of the event based retention operation.
operation_id (LONGINT): Operation ID of the event based retention operation.
policy_name (STRING): Name of the event based retention policy.
retention_period (STRING): Retention period of the event based retention policy.
path (STRING): Path of the form '/(directory path)' relative to volume root.
vserver (STRING): Name of the vserver.
volume (STRING): Name of the SnapLock volume, on which event based retention operation is running.
operation_status (STRING): Status of the event based retention operation.
status_details (STRING): Completion string of the event based retention operation.
num_files_processed (LONGINT): Total count of files for which event based retention operation was performed.
num_files_failed (LONGINT): Total count of files for which event based retention operation failed.
num_files_skipped (LONGINT): Total count of files for which event based retention operation was skipped.
num_inodes_ignored (LONGINT): Total count of inodes which were ignored by event based retention operation because they are not regular files.

snaplock.invalid events

snaplock.invalid.autocommit

Severity

ERROR

Description

This message occurs when an invalid autocommit period value is found on a SnapLock® volume. ONTAP® 9.4 software and later releases have a maximum autocommit period value of 10 years. If this maximum is exceeded, autocommit is disabled on the volume.

Corrective Action

Correct the autocommit period on the SnapLock volume by using the "volume snaplock modify" command or the "volume-set-snaplock-attrs" Zephyr API.

Syslog Message

Disabling autocommit on SnapLock volume %s%s on the Vserver with ID %s because the autocommit period exceeded the maximum of 10 years.

Parameters

volume (STRING): Name of the SnapLock volume with invalid autocommit period value.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.legal events

snaplock.legal.hold.dump.files.op.status

Severity

NOTICE

Description

This message occurs on completion of a legal-hold dump-files operation on a SnapLock® compliance volume.

Corrective Action

(None).

Syslog Message

A legal-hold dump-files operation with ID %lu ended for litigation %s on volume %s:%s and output path: "%s", with status: "%s", details: "%s". The operation passed on %lu files, failed on %lu files, skipped %lu files and ignored %lu inodes.

Parameters

operation_id (LONGINT): Operation ID of the legal-hold dump-files operation.
litigation_name (STRING): Name of the litigation.
vserver (STRING): Name of the vserver.
volume (STRING): Name of the SnapLock compliance volume, on which legal-hold dump-files operation is running.
output_path (STRING): Output path of legal-hold dump-files operation.

operation_status (STRING): Status of the legal-hold dump-files operation.
status_details (STRING): Completion string of the legal-hold dump-files operation.
num_files_processed (LONGINT): Total count of files for which legal-hold dump-files operation was performed.
num_files_failed (LONGINT): Total count of files for which legal-hold dump-files operation failed.
num_files_skipped (LONGINT): Total count of files for which legal-hold dump-files operation was skipped.
num_inodes_ignored (LONGINT): Total count of inodes which were ignored by legal-hold dump-files operation because they are not regular files.

snaplock.legal.hold.dump.litigations.job.status

Severity

NOTICE

Description

This message occurs on completion of a legal-hold dump-litigations operation.

Corrective Action

(None).

Syslog Message

A legal-hold dump-litigations operation with ID %s ended for %s with status: "%s", details: "%s".

Parameters

job_id (STRING): Job ID of the legal-hold operation.
vserver_and_volume (STRING): Name of the vserver and volume (if any).
job_status (STRING): Status of the legal-hold dump-litigations job.
status_details (STRING): Completion string of the legal-hold dump-litigations job.

snaplock.legal.hold.op.status

Severity

NOTICE

Description

This message occurs on completion of a legal-hold begin or end operation on a SnapLock® compliance volume.

Corrective Action

(None).

Syslog Message

A legal-hold %s operation with ID %lu ended for litigation %s on path %s in volume %s:%s with status: "%s", details: "%s". The operation passed on %lu files, failed on %lu files, skipped %lu files and ignored %lu inodes.

Parameters

operation_type (STRING): Type of the legal-hold operation.
operation_id (LONGINT): Operation ID of the legal-hold operation.
litigation_name (STRING): Name of the litigation.
path (STRING): Path of the form '/(directory path)' relative to volume root.
vserver (STRING): Name of the vserver.

volume (STRING): Name of the SnapLock compliance volume, on which legal-hold operation is running.
operation_status (STRING): Status of the legal-hold operation.
status_details (STRING): Completion string of the legal-hold operation.
num_files_processed (LONGINT): Total count of files for which legal-hold operation was performed.
num_files_failed (LONGINT): Total count of files for which legal-hold operation failed.
num_files_skipped (LONGINT): Total count of files for which legal-hold operation was skipped.
num_inodes_ignored (LONGINT): Total count of inodes which were ignored by legal-hold operation because they are not regular files.

snaplock.mcc events

snaplock.mcc.veto.worm

Severity

ERROR

Description

This message occurs when SnapLock legal-hold or event based retention operations are aborted during a MetroCluster Switchback or a MetroCluster Switchover operation.

Corrective Action

(None).

Syslog Message

All SnapLock legal-hold and event based retention operations were aborted because a %s is in progress.

Parameters

mcc_op (STRING): Describes the operation i.e. a MetroCluster Switchback or a MetroCluster Switchover.

snaplock.nse events

snaplock.NSE.conflict

Severity

NOTICE

Description

This message occurs when any of the following commands could not be run against a SnapLock Compliance disk, since doing so could risk the destruction of compliance data: "storage encryption disk sanitize", "storage encryption disk destroy", "storage encryption disk revert-to-original-state".

Corrective Action

(None).

Syslog Message

"storage encryption disk sanitize/destroy/revert-to-original-state" command could not be run on SnapLock Compliance disk '%s' as it could risk the destruction of compliance data.

Parameters

disk (STRING): Name of the SnapLock Compliance disk.

snaplock.sfo events

snaplock.sfo.veto.worm

Severity

ERROR

Description

This message occurs when SnapLock legal-hold or event-retention operations are aborted during an aggregate relocation or a sendhome operation.

Corrective Action

(None).

Syslog Message

All SnapLock legal-hold and event based retention operations were aborted for aggregate %s because %s is in progress.

Parameters

aggr_name (STRING): Name of the aggregate for which operations were aborted.
arl_or_sendhome (STRING): Describes the operation i.e. an aggregate relocation or a sendhome.

snaplock.ss events

snaplock.ss.lockBadVolume

Severity

ALERT

Description

This event is generated if an attempt is made to lock a snapshot on a SnapLock volume that has previously failed to find or load its SnapLock snapshot state.

Corrective Action

Run wafliron on the volume.

Syslog Message

A snapshot on SnapLock volume '%s%s' on the Vserver with ID '%s', could not be locked because the SnapLock snapshot state could not be found or loaded for the volume.

Parameters

volume (STRING): The name of the SnapLock volume on which the snapshot could not be locked.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.badMagic

Severity

ALERT

Description

This event is generated if the SnapLock snapshot state on a SnapLock volume is corrupt with an invalid magic file identifier. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

The SnapLock snapshot state is corrupt with an invalid magic file identifier on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state is corrupt with an invalid magic file identifier.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.badSize

Severity

ALERT

Description

This event is generated if the SnapLock snapshot state on a SnapLock volume is corrupt with an incorrect size. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

The SnapLock snapshot state is corrupt with an incorrect size on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state is corrupt with an incorrect size.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.badState

Severity

ERROR

Description

This message occurs when SnapLock® Snapshot® copies on the volume are corrupted, which prevents updates on the lockvault from succeeding until this is corrected.

Corrective Action

Run the "snapshot fix-snaplock-state" command on this volume.

Syslog Message

The SnapLock snapshot state is corrupt on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): Name of the SnapLock volume on which the SnapLock Snapshot state is corrupt.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.badVersion

Severity

ALERT

Description

This event is generated if the SnapLock snapshot state on a SnapLock volume has an invalid version number. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

The SnapLock snapshot state has an invalid version number on SnapLock volume '%s%s' on the Vserver with ID '%s'. The bad version number found was %d and the expected version was %d.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state has an invalid version number.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.
bad_version (INT): The invalid version number of the SnapLock snapshot state.
expected_version (INT): The expected version number of the SnapLock snapshot state.

snaplock.ss.state.createFail

Severity

ALERT

Description

This event is generated if SnapLock is unable to create the state for the SnapLock snapshot state on a SnapLock volume. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

Failed to create the SnapLock snapshot state on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state could not be created.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.dir.createFail

Severity

ALERT

Description

This event is generated if SnapLock is unable to create the SnapLock state directory for storage of SnapLock state on a SnapLock volume.

Corrective Action

Run wafliron on this volume.

Syslog Message

Failed to create the SnapLock state directory for storage of SnapLock state on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock state directory could not be created.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.loadFail

Severity

ALERT

Description

This event is generated if the SnapLock snapshot state on a SnapLock volume failed to load. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

The SnapLock snapshot state could not be loaded from SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume from which the SnapLock snapshot state could not be loaded.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.notFound

Severity

ALERT

Description

This event is generated if the SnapLock snapshot state cannot be found on a SnapLock volume. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

The SnapLock snapshot state could not be found on SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state could not be found.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.upgradeFail

Severity

ALERT

Description

This event is generated if SnapLock is unable to upgrade the the SnapLock snapshot state on a SnapLock volume. This volume will not allow SnapLock locking or unlocking of any further snapshots until this erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

Failed to upgrade the SnapLock snapshot state to SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state could not be written.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.ss.state.writeFail

Severity

ALERT

Description

This event is generated if SnapLock is unable to write the the SnapLock snapshot state on a SnapLock volume. This volume will not allow SnapLock locking or unlocking of any further snapshots until this

erroneous volume state is corrected.

Corrective Action

Run wafliron on this volume.

Syslog Message

Failed to write the SnapLock snapshot state to SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock snapshot state could not be written.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.state events

snaplock.state.dir.destroyFail

Severity

NOTICE

Description

This event is generated if SnapLock is unable to destroy the SnapLock state for a SnapLock volume. This will not affect the operation of the reverted volume and does not require any corrective action.

Corrective Action

(None).

Syslog Message

Failed to destroy the SnapLock state for SnapLock volume '%s%s' on the Vserver with ID '%s'.

Parameters

volume (STRING): The name of the SnapLock volume on which the SnapLock state could not be destroyed.
app (STRING): Application Name.
volident (STRING): Unique identifier of the volume when the volume name itself is insufficient.

snaplock.sys events

snaplock.sys.compclock.set

Severity

NOTICE

Description

This message occurs when the system's compliance clock time and date is set.

Corrective Action

(None).

Syslog Message

The compliance clock time of the system has been set to %s. Reason: %s.

Parameters

date (STRING): Human-readable compliance clock date and time.
reason (STRING): Reason for initialization of the system's compliance clock.

snaplock.sys.compclock.skew.fixed

Severity

NOTICE

Description

This message occurs when the SnapLock® system compliance clock time is skewed from the storage system's system clock by more than one day and skew is subsequently fixed.

Corrective Action

(None).

Syslog Message

The system compliance clock time (%s) was skewed from the system clock (%s) by more than one day. The system compliance clock time has been reset to the system clock time.

Parameters

system_compliance_clock_time (STRING): Human readable system compliance clock time.
system_time (STRING): Human readable system time.

snaplock.trans events

snaplock.trans.autocommit

Severity

NOTICE

Description

This message occurs when autocommit period is adjusted on a Snaplock volume upon transition. When a 7 mode SnapLock volume is transitioned to Data ONTAP® 9.4 and later, if we find the autocommit period to be greater than 10 years, we change it to 10 years, which is the maximum supported value for autocommit period in Data ONTAP® 9.4.

Corrective Action

(None).

Syslog Message

Autocommit period on SnapLock volume %s%s on the Vserver with ID %s is changed from %s to 10 years upon transition.

Parameters

volume (STRING): Name of the SnapLock volume on which autocommit period was adjusted upon transition.
app (STRING): Application Name.

volident (STRING): Unique identifier the volume in cases where the volume name itself is insufficient.
old_autocommit_period (STRING): Autocommit period of the SnapLock volume in 7 mode.

snaplock.user events

snaplock.user

Severity

NOTICE

Description

This message occurs when the SnapLock® logging system fails to securely log either the addition or deletion of the compliance admin role to or from a user account. The actual operation might have succeeded.

Corrective Action

No corrective action is necessary. However, a secure log of the request might not exist and the SnapLock log volume should be checked for correct operation.

Syslog Message

There was a problem securely logging the %s of the "%s" role %s the user "%s" by "%s". Reason: %s

Parameters

event (STRING): Identifies whether the role was added or deleted.
role (STRING): Name of the compliance admin role.
tofrom (STRING): Describes whether the role is being added to or deleted from the user account.
username (STRING): User name to or from which the role is being added or deleted.
whodidit (STRING): Name of the user performing the operation.
reason (STRING): Reason for the logging failure.

snaplock.vcc events

snaplock.vcc.assoc.mismatch

Severity

INFORMATIONAL

Description

This message occurs when the system detects mismatch in the SnapLock® volume compliance clock association with the system compliance clock. This can happen when the volume compliance clock's node ID is different from system's node ID or when volume compliance clock's scc ID is different from system compliance clock's ID or when both differ from each other.

Corrective Action

(None).

Syslog Message

Volume compliance clock association on volume %s does not match the system compliance clock at %s and its compliance clock is now reassociated with the system compliance clock.

Parameters

volume (STRING): Name of the volume that had the compliance clock association mismatch.
date (STRING): Human readable system compliance clock time at which the VCC-SCC association mismatch is detected.

snaplock.vol events

snaplock.vol.compclock.skewed

Severity

NOTICE

Description

This event is generated when the SnapLock® volume compliance clock time is skewed from the SnapLock system compliance clock by more than one day.

Corrective Action

(None).

Syslog Message

The compliance clock time (%s) of volume '%s' is skewed from the system compliance clock (%s) by more than one day.

Parameters

volume_compliance_clock_time (STRING): Human readable volume compliance clock time.
volume_name (STRING): Volume name.
system_compliance_clock_time (STRING): Human readable system compliance clock time.

snaplock.volume events

snaplock.volume.repair

Severity

NOTICE

Description

This message occurs when wafliron is run on a SnapLock® volume. If inconsistency is detected, wafliron will repair SnapLock volume. File system data before inconsistency occurred and the file system data after repair, may be different. WORM protected data may be changed. Administrator must ensure that the data on the volume is verified and restored, if needed, from backup copy or replica.

Corrective Action

(None).

Syslog Message

%s repair such as wafliron has been issued on SnapLock %s '%s'. %s data may be changed.

Parameters

vtype1 (STRING): type of volume.
vtype2 (STRING): type of volume.

volume (STRING): The name of the SnapLock volume on which volume repair is issued.
vtype3 (STRING): type of volume.

snapmirror events

snapmirror.block events

snapmirror.block.on.reconstruct

Severity

NOTICE

Description

This message occurs when a SnapMirror® operation needs to reconstruct the block type bits. The SnapMirror transfer is paused, resuming only after the block type bits for the data to be transferred have been reconstructed.

Corrective Action

If you do not want the SnapMirror transfer to pause until the block type bit reconstuction is complete, abort the transfer, allow the reconstruction to finish, and then try the SnapMirror transfer again.

Syslog Message

Starting reconstruction on %s. SnapMirror transfer from %s to %s:%s is blocked until the reconstruction is complete. If you do not want the SnapMirror transfer to be paused until the block type bit reconstuction is complete, abort the transfer, allow the reconstruction to finish, and then try the SnapMirror transfer again.

Parameters

volume (STRING): SnapMirror volume.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.

snapmirror.block.reconstructErr

Severity

ERROR

Description

This event is issued when a SnapMirror operation needs to reconstruct block type bits, but this operation cannot be started.

Corrective Action

Please check for any other error message returned.

Syslog Message

Unable to start block type bits reconstruction on %s, %s

Parameters

volume (STRING): The snapmirror volume
error (STRING): Description of the error.

snapmirror.conf events

snapmirror.conf.depre.cpsync

Severity

ERROR

Description

This message occurs when there an entry in the snapmirror.conf file is configured to use the outstanding value of greater than or equal to 10 seconds. This method of specifying cp-sync mode for the SnapMirror®, is being deprecated in ONTAP 7.3. You should use the new keyword "semi-sync" to configure cp-sync mode. See the na_snapmirror.conf man page for details.

Corrective Action

Edit the /etc/snapmirror.conf file to convert the relationship to use the "semi-sync" keyword. See the man page for details about usage.

Syslog Message

Entry for SnapMirror relationship %s:%s to %s:%s in the /etc/snapmirror.conf is using a deprecated format to specify cp-sync mode. See the na_snapmirror.conf man page for the new format.

Parameters

src_filer (STRING): Source system.
src_path (STRING): Source path.
dst_filer (STRING): Destination system.
dst_path (STRING): Destination path.

snapmirror.conf.full

Severity

ERROR

Description

This message occurs when the /etc/snapmirror.conf file in the SnapMirror® destination has more than the maximum allowed SnapMirror relationships.

Corrective Action

Reduce the number of SnapMirror relationships in the /etc/snapmirror.conf file to the maximum allowed limit.

Syslog Message

Warning from the SnapMirror configuration parser, error in line number '%d' of snapmirror.conf file, '%s'

Parameters

lineno (INT): Line number in the /etc/snapmirror.conf file.
msg (STRING): Reason for the error.

snapmirror.conf.invalidStr

Severity

ERROR

Description

This message occurs on a replication destination appliance when ONTAP encounters invalid string while collecting replication statistics.

Corrective Action

Check snapmirror.conf file for any typing mistakes. In case of a relationship line, path names are typically specified as "filer:volume" or "filer:/vol/volume/qtree". In case of a connection line check for an equal sign. Check snapmirror.conf man page for discussion of path specifications.

Syslog Message

Illegal string: %s.

Parameters

snapconfstr (STRING): The relationship or connection line.

snapmirror.conf.obsolete.nvsync

Severity

ERROR

Description

This message occurs when there exists an entry in the snapmirror.conf file that is configured to use the outstanding value of greater than 0 seconds and fewer than 10 seconds. This mode (nvlog semi-sync) is obsolete in ONTAP 7.3. When it is configured in this mode, the relationship is converted automatically to a fully synchronous relationship.

Corrective Action

Edit the /etc/snapmirror.conf file to convert the relationship to either a fully synchronous relationship with "sync" parameter or a cp semi-synchronous relationship with "semi-sync" parameter.

Syslog Message

SnapMirror relationship %s:%s to %s:%s is being converted to a fully synchronous relationship since the functionality provided by setting the outstanding parameter to a value greater than 0 and less than 10s in the snapmirror.conf file is obsolete.

Parameters

src_filer (STRING): Source system.
src_path (STRING): Source path.
dst_filer (STRING): Destination system.
dst_path (STRING): Destination path.

snapmirror.copy events

snapmirror.copy.baseLine.done

Severity

INFORMATIONAL

Description

This message occurs when the baseline transfer of a SnapMirror® copy for a volume is completed and the volume comes online.

Corrective Action

(None).

Syslog Message

Baseline transfer for volume %s completed.

Parameters

dstpath (STRING): Destination volume.

snapmirror.copy.completed

Severity

INFORMATIONAL

Description

This message occurs when the final update of a SnapMirror® copy for a volume is successfully completed and the volume is ready for transition.

Corrective Action

(None).

Syslog Message

Volume %s is now ready for transition.

Parameters

dstpath (STRING): Destination volume.

snapmirror.copy.FailedErr

Severity

ERROR

Description

This message occurs when a SnapMirror® copy relation gets an error notitication from the SnapMirror engine.

Corrective Action

(None).

Syslog Message

SnapMirror copy for volume %s failed. Reason for failure: %s.

Parameters

dstpath (STRING): Destination volume.
reason (STRING): Reason of failure.

snapmirror.copy.pause.srcNoNewData

Severity

INFORMATIONAL

Description

This message occurs when the source volume of a SnapMirror® copy relation is typed 'replica read only' and has no new data to transfer. Transfer to its destiantion is paused.

Corrective Action

If new data has been populated on the source volume by a SnapMirror schedule or manual update, run the 'snapmirror copy resume' command to restart the paused transfer. If no new data is expected on source volume,run the 'snapmirror copy complete'command to complete the volume transition.

Syslog Message

The source contains no new data; transfer to destination %s is paused.

Parameters

dstpath (STRING): Destination volume.

snapmirror.copy.readyFinal

Severity

INFORMATIONAL

Description

This message occurs when the update time taken by the latest transfer is smaller than the delta time. The volume is now ready for final update.

Corrective Action

(None).

Syslog Message

Destination volume %s is ready for final update.

Parameters

dstpath (STRING): Destination volume.

snapmirror.corrupted events

snapmirror.corrupted.replay

Severity

ALERT

Description

This message occurs when metadata replay fails in the process of making a Synchronous SnapMirror® destination flexible volume writable. This failure occurs because the filesystem on disk is corrupt.

Corrective Action

This error will not allow the destination volume to be made writable. Wafliron must be run on the destination to correct the filesystem consistency. Once the inconsistency is fixed, snapmirror break can be attempted again.

Syslog Message

Synchronous SnapMirror cannot proceed with snapmirror break for volume '%s' in containing aggregate '%s' because the filesystem on disk is corrupt.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume
dst_aggr (STRING): The name of the aggregate containing the destination volume

snapmirror.dst events

snapmirror.dst.abortOps

Severity

ERROR

Description

This event is issued when a SnapMirror incremental transfer to a destination volume is nearing completion and has to abort any dump, vol copy, snapmirror or snapvault operations from that volume.

Corrective Action

(None).

Syslog Message

Aborting any dump, vol copy, aggr copy, snapmirror or snapvault operations from %s; snapmirror incremental transfer to it is nearing completion.

Parameters

dst (STRING): SnapMirror destination volume

snapmirror.dst.autoRestrictMsg

Severity

NOTICE

Description

This event is issued when a SnapMirror initialize is issued on a volume or aggregate which is offline.

Corrective Action

SnapMirror initialize is issued on a restricted volume, use "vol/aggr restrict" to restrict the destination volume/aggregate.

Syslog Message

SnapMirror automatically restricting destination %s %s (currently offline).

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination volume

snapmirror.dst.cannotFind

Severity

ERROR

Description

This event is issued when a SnapMirror incremental transfer is issued on a volume which is offline, restricted or does not exist.

Corrective Action

Please make sure you entered the destination volume name correctly.

Syslog Message

Destination %s %s is offline, is restricted, or does not exist, SnapMirror operation terminated.

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination

snapmirror.dst.chk.stats

Severity

INFORMATIONAL

Description

Statistical information reported by "snapmirror check".

Corrective Action

(None).

Syslog Message

(None).

Parameters

dstpath (STRING): The destination volume.
statistics (STRING): Statistical information in the format: block_no - offset : src_val, dst_val block_no denotes whether it is vbn1 or 2. offset is the byte from the start of the block. src_val is the value of that offset at the src, while dst_val is at the destination.

snapmirror.dst.chkDegradedMirrorErr

Severity

ERROR

Description

This message occurs when a replication 'check' operation is issued on a SnapMirror® destination volume that is smgr-mirrored and its smgr-mirror state is mirror-degraded or resyncing.

Corrective Action

Restore the smgr-mirror state to normal or break the existing smgr-mirror relationship and try again. If available, see the diagnostic man pages and the 'aggr' command man pages for details.

Syslog Message

Destination volume '%s' is smgr-mirrored and mirror-degraded or resyncing. Cannot execute a replication 'check' operation.

Parameters

dstpath (STRING): The destination volume.

snapmirror.dst.chkDone

Severity

NOTICE

Description

This event is issued when the destination in a SnapMirror®/SnapVault(tm) relationship has finished a replication 'check' operation and no mismatches were found on the destination volume or qtree.

Corrective Action

(None).

Syslog Message

Replication 'check' from %s:%s to %s completed and no mismatches were found.

Parameters

srcfiler (STRING): The source appliance.
srcpath (STRING): The source path.
dstpath (STRING): The destination path.

snapmirror.dst.chkDoneErr

Severity

ERROR

Description

This event is issued when the destination in a SnapMirror®/SnapVault(tm) relationship has finished a replication 'check' operation and mismatches were found on the destination volume or qtree.

Corrective Action

Run replication fix ('check -F') to fix the mismatches in the relationship.

Syslog Message

Replication 'check' from %s:%s to %s found mismatches. Please run replication fix ('check -F') to fix these mismatches.

Parameters

srcfiler (STRING): The source appliance.
srcpath (STRING): The source path.
dstpath (STRING): The destination path.

snapmirror.dst.chkSnapInfo

Severity

INFORMATIONAL

Description

This message occurs at the destination appliance of a SnapMirror® 'check' operation to notify the appliance about which base snapshot will be used for the operation.

Corrective Action

(None).

Syslog Message

Snapmirror 'check' from '%s':'%s' to '%s' will use '%s' as the base snapshot. All snapshots older than and including the base snapshot on the source volume will be used.

Parameters

srcfiler (STRING): Source appliance.
srcpath (STRING): Source path.
dstpath (STRING): Destination path.
snapname (STRING): Name of the base snapshot.

snapmirror.dst.chkSyncErr

Severity

ERROR

Description

This message occurs on the destination system when a SnapMirror® 'check' operation is run on a Synchronous SnapMirror destination volume that has not been quiesced.

Corrective Action

Quiesce the destination volume by running the 'snapmirror quiesce' command before starting the SnapMirror 'check' operation.

Syslog Message

Could not run a SnapMirror 'check' operation on destination volume '%s', a Synchronous SnapMirror destination volume that has not been quiesced.

Parameters

dstpath (STRING): Destination volume.

snapmirror.dst.chkVersionErr

Severity

ERROR

Description

This message occurs on the destination system of a SnapMirror® 'check' operation when the source system's ONTAP version does not support SnapMirror 'check' on FlexVol® volumes.

Corrective Action

(None).

Syslog Message

ONTAP version at source '%s' does not support SnapMirror 'check' on flexible volumes. Cannot execute a SnapMirror 'check' operation.

Parameters

srcfiler (STRING): Source system.

snapmirror.dst.directoryOperationFailASCII

Severity

ERROR

Description

This event is issued when a SnapVault or Qtree SnapMirror destination encounters an error in a directory operation - typically creating an entry, or trying to move an entry to purgatory (for rename or delete), and the name entry consists only of ASCII characters.

Corrective Action

It may be necessary to break and reinitialize the relationship. Contact NetApp technical support.

Syslog Message

Logical replication destination directory operation failed: source inode %d, name="%s%s%s".

Parameters

srcInum (INT): The inode number of the file (or directory, link, etc.) on the source system.
n1 (STRING): The first of three name components. When combined, these will either be the path to the file on the destination system (usual case), or the NFS name and NFS alternate name of the directory entry (in those cases where we run into trouble building the full path).
n2 (STRING): The second of three name components.
n3 (STRING): The last of three name components.

snapmirror.dst.directoryOperationFailIntl

Severity

ERROR

Description

This event is issued when a SnapVault or Qtree SnapMirror destination encounters an error in a directory operation - trying to create, rename, or delete an entry. This event can occur as a result of the conditions that cause burts 106216 and 110298.

Corrective Action

If the destination volume's "vol lang" was changed after the baseline transfer, then the relationship may need to be broken and reinitialized. Please be aware that "vol lang" does not take effect on the volume until the filer is rebooted; thus, if a baseline transfer occurs after the setting was changed but before the filer was rebooted, then the "vol lang" actually changes after the baseline transfer takes place. If no change in the destination volume's "vol lang" has occurred, you may need to change the source volume's language to match that on the destination volume. For guidelines on this procedure, please contact NetApp technical support.

Logical replication destination directory operation failed: source inode %d, name="%s%s%s". If the destination volume's "vol lang" was changed after the baseline transfer, then the relationship may need to be broken and reinitialized.

Parameters

srcInum (INT): The inode number of the file (or directory, link, etc.) on the source system.
n1 (STRING): The first of three name components. When combined, these will either be the path to the file on the destination system (usual case), or the NFS name and NFS alternate name of the directory entry (in those cases where we run into trouble building the full path).
n2 (STRING): The second of three name components.
n3 (STRING): The last of three name components.

snapmirror.dst.fixDone

Severity

NOTICE

Description

This event is issued when the destination in a SnapMirror®/SnapVault(tm) relationship has successfully finished a replication fix ('check -F') operation.

Corrective Action

(None).

Syslog Message

Replication fix ('check -F') from %s:%s to %s completed successfully.

Parameters

srcfiler (STRING): The source appliance.
srcpath (STRING): The source path.
dstpath (STRING): The destination path.

snapmirror.dst.fixUsingPriorChk

Severity

NOTICE

Description

This event is issued when a relationship fix ('check -F') operation issued on a SnapMirror® destination volume is leveraging a previously executed replication 'check' operation and thus does not require to recompute the mismatches.

Corrective Action

(None).

Syslog Message

Replication fix ('check -F') from %s:%s to %s is leveraging a previously executed replication 'check' operation and does not require re-computation of the mismatches for the relationship.

Parameters

> **srcfiler** (STRING): The source appliance.
> **srcpath** (STRING): The source path.
> **dstpath** (STRING): The destination path.

snapmirror.dst.multipath.connErr

Severity

> ERROR

Description

> This event is issued when the SnapMirror destination filer is unable to setup a multipath connection with the source filer. This can happen in case of a network connection failure or due to the lack of resources on the destination filer.

Corrective Action

> Check network connectivity and also make sure that a maximum number of SnapMirror transfers are not going on.

Syslog Message

> SnapMirror is unable to setup a multipath connection to %s, resorting to the standard single TCP connection.

Parameters

> **dstpath** (STRING): SnapMirror destination

snapmirror.dst.multipath.maxConnErr

Severity

> NOTICE

Description

> This event is issued when the SnapMirror destination filer has reached the maximum number of active SnapMirror multipath connections that it can support.

Corrective Action

> Wait for some active SnapMirror transfers to complete and free up the necessary resources; then retry this transfer.

Syslog Message

> SnapMirror has reached the maximum number of active multipath connections, unable to allocate resources for a multipath transfer to %s.

Parameters

> **dstpath** (STRING): SnapMirror destination

snapmirror.dst.noBuffers

Severity

> ERROR

Description

This event is issued when no buffers are available on the SnapMirror destination.

Corrective Action

(None).

Syslog Message

No buffers available on SnapMirror destination.

Parameters

(None).

snapmirror.dst.noSnapshots

Severity

ERROR

Description

SnapMirror requires the presence of a common base snapshot on the source and the destination for doing an incremental transfer. This event is issued when a SnapMirror incremental transfer is issued on a volume or aggregate which has no snapshots, as such the transfer is aborted.

Corrective Action

Since there are no snapshots on the destination volume/aggregate, the only way to establish a SnapMirror is by doing a SnapMirror initialize.

Syslog Message

SnapMirror found no snapshots in destination %s %s, aborting transfer.

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination

snapmirror.dst.OnlineCompres

Severity

ERROR

Description

This message occurs when SnapMirror® cannot bring the destination online after a transfer because compression is not supported in this version of ONTAP.

Corrective Action

Install a version of ONTAP that supports compression, available from your vendor.

Syslog Message

SnapMirror could not bring destination volume %s online. Compression is not supported in this version of ONTAP.

Parameters

dst (STRING): SnapMirror destination.

snapmirror.dst.OnlineErr

Severity

ERROR

Description

This event is issued when SnapMirror is not able to bring the destination online after a transfer.

Corrective Action

(None).

Syslog Message

SnapMirror not able to bring destination %s %s online, %s.

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): SnapMirror destination
error (STRING): The error message

snapmirror.dst.onlineFailed

Severity

ERROR

Description

This event is issued when after SnapMirror transfer it is not able to bring the destination online.

Corrective Action

(None).

Syslog Message

Failed to bring destination %s %s online (%d,%d).

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination
errcode1 (INT): Error code 1
errcode2 (INT): Error code 2

snapmirror.dst.OnlineNotComp

Severity

ERROR

Description

This message occurs when SnapMirror® cannot bring the destination online after a transfer because SnapLock® is not supported on this version of ONTAP.

Corrective Action

Install a version of ONTAP that is supported with SnapLock, available from your vendor.

Syslog Message

SnapMirror could not bring destination %s %s online. SnapLock is not supported on this version of ONTAP.

Parameters

type (STRING): Type of object (volume or aggregate).
dst (STRING): SnapMirror destination.

snapmirror.dst.requestDenied

Severity

ERROR

Description

This event is issued when the destination filer requesting a SnapMirror transfer from the source filer is denied the transfer request.

Corrective Action

Please check the error message on source.

Syslog Message

SnapMirror transfer request for %s from %s denied, %s.

Parameters

dstpath (STRING): The SnapMirror destination, can be volume or qtree
srcfiler (STRING): The SnapMirror source filer
error (STRING): The error message

snapmirror.dst.restart.createErr

Severity

ERROR

Description

This event is issued when SnapMirror is not able to create files required for a restart

Corrective Action

(None).

Syslog Message

SnapMirror not able to create %s which is needed for restart.

Parameters

filepath (STRING): The file SnapMirror is not able to create

snapmirror.dst.restart.failed

Severity

NOTICE

Description

This event is issued when SnapMirror restart negotiation fails.

Corrective Action

(None).

Syslog Message

SnapMirror restart negotiation failed.

Parameters

(None).

snapmirror.dst.restart.invalidChkpt

Severity

NOTICE

Description

This event is issued when an invalid restart checkpoint is detected on the destination.

Corrective Action

(None).

Syslog Message

Restart checkpoint for destination volume %s is no longer valid, removing checkpoint.

Parameters

dst (STRING): The SnapMirror destination volume

snapmirror.dst.restart.invalidSnaps

Severity

ERROR

Description

This very rare message occurs on a replication destination appliance, when SnapMirror® detects that a transfer restarted from a checkpoint is attempting to transfer additional snapshots that were not recorded in the checkpoint. In this case, SnapMirror aborts the transfer and clears the checkpoint to prevent corruption on the destination appliance.

Corrective Action

No action is required for a scheduled SnapMirror transfer. The next scheduled transfer starts from the beginning. If you manually initiated this transfer, manually start a new transfer.

Syslog Message

SnapMirror cannot restart the transfer from %s:%s to %s due to a change in the state of snapshots on the source appliance. The checkpoint has been cleared, and the next transfer will start from beginning.

Parameters

srcfiler (STRING): Source appliance.
srcpath (STRING): SnapMirror source volume.

dstpath (STRING): SnapMirror destination volume.

snapmirror.dst.restart.noRootVol

Severity
ERROR

Description
This event is issued when SnapMirror destination is not able to find the root volume.

Corrective Action
(None).

Syslog Message
Cannot find root volume.

Parameters
(None).

snapmirror.dst.restart.readErr

Severity
ERROR

Description
This event is issued when SnapMirror is not able to read files which were created for a restart.

Corrective Action
(None).

Syslog Message
SnapMirror not able to read %s which is needed for restart.

Parameters
filepath (STRING): The file SnapMirror is not able to read

snapmirror.dst.restart.writeErr

Severity
ERROR

Description
This event is issued when SnapMirror is not able to write to files which were created for a restart.

Corrective Action
(None).

Syslog Message
SnapMirror not able to write to %s which is needed for restart.

Parameters

> **filepath** (STRING): The file SnapMirror is not able to write to

snapmirror.dst.resync.info

Severity

> NOTICE

Description

> This event is issued when a SnapMirror resync operation is successful and tells the base snapshot being used.

Corrective Action

> (None).

Syslog Message

> SnapMirror resync of %s to %s:%s is using %s as the base snapshot.

Parameters

> **dstpath** (STRING): SnapMirror destination volume or qtree
> **srcfiler** (STRING): SnapMirror source filer
> **srcpath** (STRING): SnapMirror source volume or qtree
> **basesnapname** (STRING): The base snapshot being used.

snapmirror.dst.resync.noAction

Severity

> NOTICE

Description

> This event is issued when a SnapMirror resync -n is executed.

Corrective Action

> (None).

Syslog Message

> SnapMirror resync of %s not performed because -n(ot really) option set.

Parameters

> **dstpath** (STRING): SnapMirror destination

snapmirror.dst.revertAggr

Severity

> NOTICE

Description

> This event is issued when a SnapMirror initialize operation has to revert the checksum state of the destination aggregate because the source and destination aggregate have differing checksum states.

Corrective Action

No corrective action required.

Syslog Message

A SnapMirror transfer to destination aggregate %s has found that the source and destination aggregates have differing checksum states. Data ONTAP is aborting the transfer and reverting the checksum state for the destination aggregate. After ONTAP displays a message showing the revert is complete, you will need to retry the operation. You can use the "aggr status -c" command to see the progress of the reversion.

Parameters

dst (STRING): The SnapMirror destination aggregate

snapmirror.dst.revertErr

Severity

ERROR

Description

This event is issued when a SnapMirror initialize operation is not able to revert the checksum state of the destination volume.

Corrective Action

(None).

Syslog Message

ONTAP cannot revert the checksum state of destination %s %s.

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination

snapmirror.dst.reverting

Severity

ERROR

Description

This event is issued when a SnapMirror initialize operation is issued on a volume/aggregate which is reverting its checksum state.

Corrective Action

(None).

Syslog Message

Aborting SnapMirror transfer to %s %s because it is reverting its checksum state.

Parameters

volaggr (STRING): Whether volume or aggregate
dst (STRING): The SnapMirror destination volume

snapmirror.dst.revertVol

Severity

ERROR

Description

This event is issued when a SnapMirror initialize operation has to revert the checksum state of the destination volume because the source and destination have differing checksum states.

Corrective Action

No corrective action required.

Syslog Message

A SnapMirror transfer to destination volume %s has found that the source and destination volumes have differing checksum states. Data ONTAP is aborting the transfer and reverting the checksum state for the destination volume. After ONTAP displays a message showing the revert is complete, you will need to retry the operation. You can use the "vol status -c" command to see the progress of the reversion.

Parameters

dst (STRING): The SnapMirror destination

snapmirror.dst.snapCreateWarning

Severity

NOTICE

Description

This event is issued when a named snapshot creation at the end of a qtree SnapMirror transfer fails. Since the transfer succeeded, only the snap create in the end failed, we just issue a warning.

Corrective Action

(None).

Syslog Message

SnapMirror transfer from %s:%s to %s : creation of named snapshot "%s" failed.

Parameters

srcfiler (STRING): The SnapMirror source filer
srcpath (STRING): The SnapMirror source qtree
dstpath (STRING): The SnapMirror destination qtree
snapname (STRING): The snapshot which was supposed to be created on the destination volume

snapmirror.dst.snapDelErr

Severity

ERROR

Description

This event is issued when on a SnapMirror incremental the snapshot that SnapMirror tries to delete in the destination volume is softlocked.

Corrective Action

(None).

Syslog Message

Snapshot %s in destination volume %s is in use, cannot delete.

Parameters

snapname (STRING): The snapshot which is locked
dst (STRING): The SnapMirror destination volume

snapmirror.dst.sync.chkErr

Severity

ERROR

Description

This message occurs when a SnapMirror® destination volume tries to go into sync while an active SnapMirror 'check' operation is in progress.

Corrective Action

The mirror gets back into sync after the SnapMirror 'check' operation is complete. To expedite this process, abort the ongoing SnapMirror 'check' operation by running the 'snapmirror check abort' command on the destination system.

Syslog Message

The destination volume '%s' has an active SnapMirror 'check' operation in progress. Could not go into sync.

Parameters

dstpath (STRING): Destination volume.

snapmirror.dst.sync.mm.nvlog

Severity

ERROR

Description

This message occurs when NVLOG version mismatch between the source and destination appliance prevents the use of synchronous SnapMirror®. The source and destination appliances must use the same version of NVLOG to mirror synchronously. ONTAP will use periodic updates to mirror the volume until the mismatch is resolved.

Corrective Action

Upgrade the source or destination appliance so that they both use the same NVLOG version. It is also recommended that both appliances run the same version of ONTAP.

Syslog Message

NVLOG version mismatch for Synchronous SnapMirror from %s:%s to %s. The source and destination appliances must use the same NVLOG version to mirror synchronously. Reverting to periodic updates to mirror the volume.

Parameters

    srcfiler (STRING): Name of the SnapMirror source appliance.
    srcpath (STRING): Name of the SnapMirror source volume.
    dstpath (STRING): Name of the SnapMirror destination volume.

snapmirror.dst.sync.mm.proto

Severity

    ERROR

Description

    This message occurs when a protocol version mismatch between the source and destination appliance prevents the use of synchronous SnapMirror®. The source and destination appliances must use the same version of protocol to mirror synchronously. ONTAP will use periodic updates to mirror the volume until the mismatch is resolved.

Corrective Action

    Upgrade the source or destination appliance so that they both use the same protocol version. It is also recommended that both appliances run the same version of ONTAP.

Syslog Message

    Protocol version mismatch for Synchronous SnapMirror from %s:%s to %s. The source and destination appliances must use the same protocol version to mirror synchronously. Reverting to periodic updates to mirror the volume.

Parameters

    srcfiler (STRING): Name of the SnapMirror source appliance.
    srcpath (STRING): Name of the SnapMirror source volume.
    dstpath (STRING): Name of the SnapMirror destination volume.

snapmirror.dst.updateDelayed

Severity

    NOTICE

Description

    This event is issued when an update request is received on a destination qtree, which is being used as the source for another transfer.

Corrective Action

    (None).

Syslog Message

    Transfer from %s to %s:%s is in progress, SnapMirror transfer from %s:%s delayed.

Parameters

    dstpath (STRING): The SnapMirror destination
    dstfiler2 (STRING): The destination filer for dstpath
    dstpath2 (STRING): The destination for dstpath
    srcfiler (STRING): The source filer for dstpath
    srcpath (STRING): The source for dstpath

snapmirror.flextotraderr events

snapmirror.flexToTradErr

Severity

ERROR

Description

This message occurs when the user tries to copy a flexible volume into a traditional volume using SnapMirror®.

Corrective Action

Retry the operation with a flexible volume as the destination.

Syslog Message

snapmirror: A flexible volume cannot be copied into a traditional volume.

Parameters

(None).

snapmirror.log events

snapmirror.log.openErr

Severity

ERROR

Description

This event is issued when an error is encountered when opening the SnapMirror log file for writing.

Corrective Action

(None).

Syslog Message

Failed to open SnapMirror log file: %s.

Parameters

error (STRING): The error encountered while opening the SnapMirror log file for writing.

snapmirror.log.unknownEvent

Severity

ERROR

Description

This event is issued when an unknown event is sent to be logged in the SnapMirror log file.

Corrective Action

(None).

SnapMirror log encountered unknown event : %d.

Parameters

event (INT): The unknown event

snapmirror.log.writeErr

Severity

ERROR

Description

This event is issued when an error is encountered when writing to the SnapMirror log file.

Corrective Action

(None).

Syslog Message

Failed to write to SnapMirror log file: %s.

Parameters

error (STRING): The error encountered while writing to the SnapMirror log file.

snapmirror.lrs events

snapmirror.lrs.FiletypeMod

Severity

ALERT

Description

This message occurs when SnapMirror encounters mismatched file types between two snapshots that it is comparing. The transfer is aborted and future attempts fail until the problem is resolved.

Corrective Action

Contact NetApp technical support.

Syslog Message

SnapMirror encountered mismatched file types for inode %u in volume %u. It has file type %u in snapshot %u and a file type %u in snapshot %u.

Parameters

inode_num (INT): Identifier of the affected file.
fsid (INT): FSID of the volume.
base_filetype (INT): File type of the file in the base snapshot.
base_snap_id (INT): Identifier of the base snapshot.
incr_filetype (INT): File type of the file in the incremental snapshot.
incr_snap_id (INT): Identifier of the incremental snapshot.

snapmirror.metadata events

snapmirror.metadata.create.fail

Severity

ERROR

Description

This message occurs when a Synchronous SnapMirror® destination flexible volume is unable to enter synchronous replication mode because the containing aggregate does not have enough space left to allow the update to proceed.

Corrective Action

This error can be fixed by creating more space in the containing aggregate. This can be done by adding additional disks to the containing aggregate.

Syslog Message

Synchronous SnapMirror failed to update volume '%s' because there is not enough space in containing aggregate '%s'.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume
dst_aggr (STRING): The name of the aggregate containing the destination volume

snapmirror.metadata.definite.loss

Severity

ERROR

Description

This message occurs when a Synchronous SnapMirror® destination flexible volume has lost metadata while entering synchronous replication mode.

Corrective Action

This error becomes obsolete if the destination volume successfully goes into sync. If the destination volume is made writable before it goes into sync, then it will come online with a recovery point (a snapshot) that's behind the on-disk recovery point that the destination had when it fell out of sync. Wafliron and Snapmirror Checker must be run on the destination after it is made writable to verify filesystem consistency.

Syslog Message

Synchronous SnapMirror has lost metadata for volume '%s' in containing aggregate '%s' when going into sync.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume
dst_aggr (STRING): The name of the aggregate containing the destination volume

snapmirror.metadata.possible.loss

Severity

ERROR

Description

This message occurs when a Synchronous SnapMirror® destination flexible volume may or may not have lost metadata while entering synchronous replication mode.

Corrective Action

This warning becomes obsolete if the destination volume successfully goes into sync. If the destination volume is made writable before it goes into sync, then there are two possible outcomes. If the destination comes online with a recovery point (a snapshot) that's behind the on-disk recovery point that the destination had when it fell out of sync, then the system has lost the recovery point. If however the destination comes online with a recovery point (a snapshot) that's better than before then there are no problems. In either case, wafliron and Snapmirror Checker must be run on the destination after it is made writable to check for any possible errors.

Syslog Message

Synchronous SnapMirror may or may not have lost metadata for volume '%s' in containing aggregate '%s' when going into sync.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume
dst_aggr (STRING): The name of the aggregate containing the destination volume

snapmirror.migrate events

snapmirror.migrate.complete

Severity

NOTICE

Description

This event is issued when a migrate completes successfully.

Corrective Action

(None).

Syslog Message

SnapMirror migrate from %s:%s to %s:%s complete.

Parameters

srcfiler (STRING): SnapMirror source system.
srcpath (STRING): SnapMirror source volume.
dstfiler (STRING): SnapMirror destination system.
dstpath (STRING): SnapMirror destination volume.

snapmirror.migrate.dstErr

Severity

ERROR

Description

This event is issued when a migrate request encounters an error on the SnapMirror® destination.

Corrective Action

(None).

Syslog Message

SnapMirror migration from %s:%s to %s:%s reports error: %s.

Parameters

srcfiler (STRING): SnapMirror source system.
srcpath (STRING): SnapMirror source volume.
dstfiler (STRING): SnapMirror destination system.
dstpath (STRING): SnapMirror destination volume.
error (STRING): Error encountered on the SnapMirror destination.

snapmirror.migrate.entryFound

Severity

ERROR

Description

This event is issued when partially completed SnapMirror migrate entry is encountered while parsing the registry at boot time looking for SnapMirror migrate entries.

Corrective Action

(None).

Syslog Message

SnapMirror found %s in mid-migration state : %s.

Parameters

volume (STRING): The volume whose migrate entry is found
error (STRING): The error string

snapmirror.migrate.fsidErr

Severity

ERROR

Description

This message occurs when a migrate request encounters an error after rewriting the File System IDentifier (FSID) of a volume. During the migration process, the FSIDs of both source and destination sides are rewritten. When this process encounters an error, the migration process must roll back both volumes to their original states. This message notifies you that it cannot restore their FSIDs back to their orignalFSIDs.

Corrective Action

Set the privilege level to advanced. Rewrite the FSID of the volume to its original FSID using the 'vol rewrite_fsid' command.

Syslog Message

Cannot rewrite volume %s FSID to its original FSID after migration failure: to 0x%x

Parameters

volume (STRING): Volume name where the problem is detected.
toFSID (INT): Original FSID of the volume.

snapmirror.migrate.incorrectEntry

Severity

ERROR

Description

This event is issued when an incorrect migrate entry is encountered while parsing the registry at boot time trying to find out partially completed SnapMirror migrate operations.

Corrective Action

(None).

Syslog Message

%s has an unrecognizable SnapMirror migrate state entry associated with it : %s.

Parameters

volume (STRING): The volume whose migrate entry is found
error (STRING): The error string

snapmirror.migrate.registryErr

Severity

ERROR

Description

This event is issued when an error is encountered parsing the registry at boot time when trying to find out partially completed SnapMirror migrate operations.

Corrective Action

(None).

Syslog Message

Unable to find SnapMirror migrate entries in the registry, registry parsing error : %s.

Parameters

error (STRING): The error encountered while parsing the registry looking for partially completed migrate operations.

snapmirror.migrate.srcErr

Severity

ERROR

Description

This event is issued when a migrate request encounters an error on the SnapMirror® source.

Corrective Action

(None).

Syslog Message

SnapMirror migration from %s:%s to %s:%s reports error: %s.

Parameters

srcfiler (STRING): SnapMirror source system.
srcpath (STRING): SnapMirror source volume.
dstfiler (STRING): SnapMirror destination system.
dstpath (STRING): SnapMirror destination volume.
error (STRING): Error encountered on the SnapMirror source.

snapmirror.migrate.srcNotReady

Severity

ERROR

Description

This event is issued when a migrate request is received for a source volume which is not yet ready.

Corrective Action

(None).

Syslog Message

SnapMirror migrate request for volume %s, which is not in migrating state.

Parameters

src (STRING): SnapMirror source volume

snapmirror.migrate.unknownState

Severity

NOTICE

Description

This event is issued when an unknown state for a volume in migration is encountered.

Corrective Action

(None).

Syslog Message

SnapMirror found volume in illegal migration state : %d.

Parameters

state (INT): Migration state of the volume

snapmirror.multipath events

snapmirror.multipath.initErr

Severity

ERROR

Description

This event is issued during boot or during takeover when the filer is unable to setup the necessary infrastructure required for SnapMirror multipathing support.

Corrective Action

Check the network connectivity on the source and the destination side. If the problem persists then, contact NetApp technical support

Syslog Message

SnapMirror is unable to setup multipath connection support on %s host.

Parameters

host (STRING): The host, local or partner

snapmirror.reconstruct events

snapmirror.reconstruct.complete

Severity

NOTICE

Description

This message occurs when the SnapMirror® requested reconstruction of a per-volume meta file used for labeling block information is complete.

Corrective Action

No corrective action.

Syslog Message

Reconstruction %s for data to be transferred by SnapMirror from %s to %s:%s was completed successfully in %u secs.

Parameters

volume (STRING): SnapMirror volume.
srcpath (STRING): Replication source path.
dstfiler (STRING): Replication destination system.
dstpath (STRING): Replication destination path.
time (INT): Time it took for the reconstruction to be complete.

snapmirror.registry events

snapmirror.registry.cleanup

Severity

INFORMATIONAL

Description

This message occurs when the system cleans up an invalid value in SnapMirror® registry.

Corrective Action

(None).

Syslog Message

Cleanup invalid registry %s: %s.

Parameters

type (STRING): SnapMirror registry key or value .
invalid (STRING): Invalid SnapMirror registry key or value.

snapmirror.replay events

snapmirror.replay.failed

Severity

EMERGENCY

Description

This message occurs when metadata replay fails in the process of making a Synchronous SnapMirror® destination flexible volume writable. This will result in the destination volume coming online with the view of the last snapshot successfully transferred instead of the view of the active filesystem up until the last consistency point..

Corrective Action

There is no way to recover from this data loss.

Syslog Message

Synchronous SnapMirror failed to replay metadata up until the last consistency point during snapmirror break for volume '%s'.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume

snapmirror.resync events

snapmirror.resync.blkRclmtn

Severity

ERROR

Description

This message occurs when a flexible volume restored from a snapshot might not be able to relinquish free

blocks to its containing aggregate. As a result, the containing aggregate might run out of space if this condition continues past the next incremental SnapMirror® transfer.

Corrective Action

Monitor the state after the next incremental SnapMirror update for this volume to verify that space is available in the containing aggregate. Free up space in the containing aggregate if the condition persists.

Syslog Message

Flexible volume '%s' cannot release free blocks to its containing aggregate '%s'.

Parameters

vol (STRING): Volume name.
aggr (STRING): Aggregate name.

snapmirror.retry events

snapmirror.retry.replay

Severity

ERROR

Description

This message occurs when metadata replay fails in the process of making a Synchronous SnapMirror® destination flexible volume writable. This failure occurs because sufficient space was not available in the containing aggregate.

Corrective Action

This error will not allow the destination volume to be made writable until additional space is made available in the containing aggregate. The snapmirror break command should be issued again after additional disks have been added to the aggregate.

Syslog Message

Synchronous SnapMirror cannot proceed with snapmirror break for volume '%s' in containing aggregate '%s' because sufficient space was not available.

Parameters

dst_volume (STRING): The name of the Synchronous SnapMirror® destination volume
dst_aggr (STRING): The name of the aggregate containing the destination volume

snapmirror.sockreaderr events

snapmirror.sockReadErr

Severity

ERROR

Description

This event is issued when SnapMirror tries to read a very large chunk from the network.

Corrective Action

(None).

Syslog Message

Attempted illegal network read of %d bytes.

Parameters

bytes (INT): Bytes SnapMirror tried to read from socket.

snapmirror.sockstrreaderr events

snapmirror.sockStrReadErr

Severity

ERROR

Description

This event is issued when SnapMirror tries to read a large string from the socket.

Corrective Action

(None).

Syslog Message

Attempted read of a large string of length %d.

Parameters

len (INT): String length SnapMirror tried to read from socket.

snapmirror.sockstrwriteerr events

snapmirror.sockStrWriteErr

Severity

ERROR

Description

This event is issued when SnapMirror tries to write a large string to the socket.

Corrective Action

(None).

Syslog Message

Write string too large %d.

Parameters

len (INT): String length SnapMirror tried to write to socket.

snapmirror.src events

snapmirror.src.cannotFind

Severity

ERROR

Description

This event is issued when a SnapMirror is issued from a source volume which is offline, restricted or does not exist.

Corrective Action

(None).

Syslog Message

SnapMirror : source %s %s is offline, is restricted, or does not exist.

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source

snapmirror.src.chkDone

Severity

NOTICE

Description

This event is issued when the source in a SnapMirror®/SnapVault(tm) relationship has finished a replication 'check' operation. The user should review the destination appliance's SnapMirror log file to make sure that no mismatches were found.

Corrective Action

Please review destination appliance's SnapMirror log file to make sure that no mismatches were found in the relationship.

Syslog Message

Replication 'check' from %s to %s:%s completed: Please review destination appliance's SnapMirror log file for more information.

Parameters

srcpath (STRING): The source path.
dstfiler (STRING): The destination appliance.
dstpath (STRING): The destination path.

snapmirror.src.chkSnapInfo

Severity

INFORMATIONAL

Description

This message occurs at the source appliance of a SnapMirror® 'check' operation to notify the appliance about which base snapshot will be used for the operation.

Corrective Action

(None).

Syslog Message

Snapmirror 'check' from '%s' to '%s':'%s' will use '%s' as the base snapshot. All snapshots older than and including the base snapshot on the source volume will be used.

Parameters

srcpath (STRING): Source path.
dstfiler (STRING): Destination appliance.
dstpath (STRING): Destination path.
snapname (STRING): Name of the base snapshot.

snapmirror.src.connDropped

Severity

ERROR

Description

This event is issued when SnapMirror source gets an error reading/writing to the network when communicating with the destination at the beginning of a SnapMirror transfer.

Corrective Action

(None).

Syslog Message

Error reading/writing to network, connection dropped.

Parameters

(None).

snapmirror.src.diffSnap

Severity

ERROR

Description

This event is issued when SnapMirror destination requests for a different snapshot than expected.

Corrective Action

(None).

Syslog Message

SnapMirror transfer from %s to %s:%s : snapshot %s confusion, aborting transfer.

Parameters

srcpath (STRING): The SnapMirror source volume or qtree

dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination volume or qtree
snapname (STRING): The snapshot requested by the destination

snapmirror.src.fixDone

Severity

NOTICE

Description

This event is issued when the source in a SnapMirror®/SnapVault(tm) relationship has finished a replication fix ('check -F') operation. The user should check the destination appliance's SnapMirror log file to make sure that all fixes were applied successfully.

Corrective Action

Please review destination appliance's SnapMirror log file to make sure that all mismatches were fixed for the relationship.

Syslog Message

Replication fix ('check -F') from %s to %s:%s completed: Please review destination storage appliance's SnapMirror log file for more information.

Parameters

srcpath (STRING): The source path.
dstfiler (STRING): The destination appliance.
dstpath (STRING): The destination path.

snapmirror.src.inCutOver

Severity

ERROR

Description

This message occurs under two conditions: 1) When a new SnapMirror® command is issued on the destination volume of a volume being moved using the 'vol move'command. 2) When a new SnapMirror command is issued on the source volume of a volume being moved using the 'vol move' that is in the cutover phase. The new SnapMirror operation will abort.

Corrective Action

Retry the new SnapMirror operation after the current 'vol move' operation is complete.

Syslog Message

SnapMirror: source volume %s is part of a 'vol move' operation.

Parameters

src (STRING): SnapMirror source volume.

snapmirror.src.inopick.abort

Severity

INFORMATIONAL

Description

This message occurs when the SnapMirror® source appliance aborts a qtree transfer it was doing because the producer thread aborted, usually due to lack of memory.

Corrective Action

(None).

Syslog Message

(None).

Parameters

srcpath (STRING): SnapMirror source path.
dstfiler (STRING): SnapMirror destination appliance.
dstpath (STRING): SnapMirror destination path.

snapmirror.src.markedCorrupt

Severity

ALERT

Description

This event is issued when a SnapMirror is issued from a source volume or aggregate which is offline, restricted or does not exist.

Corrective Action

(None).

Syslog Message

Source %s %s is marked as corrupt, transfer not done.

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source

snapmirror.src.multipath.connErr

Severity

ERROR

Description

This event is issued when the SnapMirror source filer is unable to setup a multipath connection with the destination filer. This can happen in case of a network connection failure.

Corrective Action

Check network connectivity. SnapMirror uses ports 10565 and 10566. Please make sure they are open in the firewall configuration.

Syslog Message

SnapMirror is unable to set up a multipath/failover connection from %s to %s:%s, SnapMirror is resorting to a single TCP connection. Please ensure ports 10565 and 10566 are open in the firewall configuration.

Parameters

srcpath (STRING): SnapMirror source
dstfiler (STRING): SnapMirror destination filer
dstpath (STRING): SnapMirror destination

snapmirror.src.noNewData

Severity

NOTICE

Description

This generic event is issued when the SnapMirror source volume/aggregate itself is a SnapMirror destination and has no new data to send to its SnapMirror destination.

Corrective Action

Please do a SnapMirror transfer to the source first.

Syslog Message

SnapMirror source %s %s has no new data for %s:%s.

Parameters

volaggr (STRING): Whether volume or aggregate
srcpath (STRING): The SnapMirror source
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination

snapmirror.src.notLicensed

Severity

NOTICE

Description

This event is issued when a SnapMirror source filer receives a request for transfer when SnapMirror is not even licensed on it.

Corrective Action

Please license SnapMirror.

Syslog Message

Command request while SnapMirror not licensed on this filer.

Parameters

(None).

snapmirror.src.notOn

Severity

NOTICE

Description

This message occurs when a SnapMirror® source system receives a request for transfer when SnapMirror is off on the system.

Corrective Action

Issue the 'snapmirror on' command.

Syslog Message

Command request while SnapMirror is off on this filer.

Parameters

(None).

snapmirror.src.notReady

Severity

ERROR

Description

This event is issued when the SnapMirror source volume is not yet ready for a SnapMirror transfer.

Corrective Action

Please try again.

Syslog Message

Source %s %s not ready for SnapMirror transfer, please try again.

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source

snapmirror.src.offline

Severity

ERROR

Description

This event is issued when the SnapMirror source volume or aggregate is taken offline.

Corrective Action

(None).

Syslog Message

Source %s %s requested offline.

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source

snapmirror.src.phaseI

Severity

NOTICE

Description

This event is issued when the SnapMirror source doing a qtree transfer enters phase I of the transfer.

Corrective Action

No corrective action required.

Syslog Message

[SnapMirror source transfer %s -→ %s:%s] starting phase I.

Parameters

srcpath (STRING): The SnapMirror source path
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination path

snapmirror.src.phaseII

Severity

NOTICE

Description

This event is issued when the SnapMirror source doing a qtree transfer enters phase II of the transfer.

Corrective Action

No corrective action required.

Syslog Message

[SnapMirror source transfer %s -→ %s:%s] starting phase II.

Parameters

srcpath (STRING): The SnapMirror source path
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination path

snapmirror.src.requestDenied

Severity

ERROR

Description

This event is issued when the destination filer requesting a SnapMirror transfer from the source filer is denied the transfer request.

Corrective Action

(None).

SnapMirror transfer request from %s to host %s at IP address %s denied: %s.

Parameters

srcpath (STRING): The SnapMirror source, can be volume or qtree
hostname (STRING): The hostname of the destination filer
ipaddress (STRING): The IP address of the destination filer
error (STRING): The reason why the request was denied.

snapmirror.src.restart.chkptFailed

Severity

NOTICE

Description

This event is issued when we are not able to set a restart checkpoint on the qtree SnapMirror source.

Corrective Action

(None).

Syslog Message

SnapMirror transfer to %s:%s : restart checkpoint setup failed.

Parameters

dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination qtree

snapmirror.src.restart.noSnap

Severity

ERROR

Description

This event is issued when SnapMirror source is not able to find the latest snapshot needed for restart.

Corrective Action

(None).

Syslog Message

Could not find the latest snapshot needed for restart.

Parameters

(None).

snapmirror.src.resync.snapNotFound

Severity

ERROR

Description

This event is issued on the source when the resync base snapshot is not found on the source.

Corrective Action

(None).

Syslog Message

Could not find base snapshot to resync %s %s:%s to %s.

Parameters

volaggr (STRING): Whether volume or aggregate
dstfiler (STRING): SnapMirror destination filer
dstpath (STRING): SnapMirror destination
srcpath (STRING): SnapMirror source

snapmirror.src.resync.toSelf

Severity

ERROR

Description

This event is issued when SnapMirror source detects and attempt to resync a volume to itself.

Corrective Action

(None).

Syslog Message

SnapMirror cannot resync %s %s to itself, operation not permitted.

Parameters

volaggr (STRING): Where source volume or aggregate
srcpath (STRING): SnapMirror source

snapmirror.src.revertPending

Severity

NOTICE

Description

This message indicates the source is being reverted by WAFL and cannot currently be used for a snapmirror operation.

Corrective Action

This message indicates the source is being reverted. After the revert completes the operation should be retried.

Syslog Message

snapmirror copy: The source is being reverted by WAFL.

Parameters

(None).

snapmirror.src.snapGotDeleted

Severity

ERROR

Description

This event is issued when the base snapshot on the SnapMirror source got deleted.

Corrective Action

(None).

Syslog Message

SnapMirror snapshot %s was deleted or renamed, transfer from %s to %s:%s aborted.

Parameters

snapname (STRING): The SnapMirror base snapshot
srcpath (STRING): The SnapMirror source, can be a volume or qtree
dstfiler (STRING): The SnapMirror destination filer
dstpath (STRING): The SnapMirror destination, can be a volume or qtree

snapmirror.src.snapshotErr

Severity

ERROR

Description

This event is issued when we are not able to obtain all the snapshot information, from the SnapMirror source volume, required for a SnapMirror transfer.

Corrective Action

(None).

Syslog Message

SnapMirror not able to obtain snapshot information from source %s %s

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source volume

snapmirror.src.sockErr

Severity

ERROR

Description

This event is issued when SnapMirror on the source filer has problems opening a socket.

Corrective Action

(None).

Syslog Message

Cannot accept SnapMirror destination requests: %s.

Parameters

error (STRING): The error message

snapmirror.src.sockOk

Severity

NOTICE

Description

This event is issued when SnapMirror on the source filer had problems opening a socket, but is fine now.

Corrective Action

No corrective action required.

Syslog Message

SnapMirror now accepting destination requests.

Parameters

(None).

snapmirror.src.sync.compressedVol

Severity

ERROR

Description

This event is issued when a Synchronous SnapMirror source attempts to go into fully synchronous mode when compression is enabled on the source volume.

Corrective Action

SnapMirror currently does not support a compressed volume as a synchronous volume source. In order to synchronously mirror the volume, the compression feature must be disabled on the volume.

Syslog Message

Synchronous SnapMirror source volume %s has compression enabled, which is not supported.

Parameters

src (STRING): Name of the source volume.

snapmirror.src.sync.flexSameFilerOrHA

Severity

ERROR

Description

This event is issued when a SnapMirror request for going synchronous is received for two flexible volumes that reside on the same filer or belong to the same HA pair.

Corrective Action

Synchronous SnapMirror cannot operate on two flexible volumes on the same filer or on the same HA pair. Please move one of the volumes off the filer or HA pair.

Syslog Message

Synchronous SnapMirror cannot run between two flexible volumes on the same filer or HA pair; this mode is not allowed from %s to %s.

Parameters

src (STRING): The source volume name
dst (STRING): The destination volume name

snapmirror.src.sync.FvolSyncTooSmall

Severity

ERROR

Description

This event is issued when a source side SnapMirror request attempts to go into fully synchronous mode on a flexible volume and it is smaller than the supported size.

Corrective Action

SnapMirror currently does not support a filer having a synchronous flexible volume source that is smaller than the minimum supported size. Increase the size of the flexible volume source and destination to at least the minimum supported size.

Syslog Message

The flexible volume Synchronous SnapMirror source %s is %llu MB, which is smaller than the minimum supported size of %llu MB.

Parameters

src (STRING): Name of the source flexible volume.
size (LONGINT): Size of the source flexible volume (MB).
minsize (LONGINT): Minimum supported volume size (MB) for flexible volume synchronous snapmirror transfers.

snapmirror.src.sync.license

Severity

NOTICE

Description

This event is issued when a SnapMirror request for going synchronous is received when the feature is not licensed.

Corrective Action

Please license synchronous SnapMirror on the source filer.

Syslog Message

Synchronous SnapMirror is not licensed. Synchronous mode from %s to %s:%s is not allowed.

Parameters

srcvol (STRING): The source volume name
dstfiler (STRING): The SnapMirror destination filer
dstvol (STRING): The destination volume name

snapmirror.src.sync.platform

Severity

ERROR

Description

This event is issued when a SnapMirror request for going synchronous is received when an inappropriate platform is used.

Corrective Action

(None).

Syslog Message

Synchronous SnapMirror is not supported on this platform. Synchronous mode from %s to %s:%s is not allowed.

Parameters

srcvol (STRING): The source volume name
dstfiler (STRING): The SnapMirror destination filer
dstvol (STRING): The destination volume name

snapmirror.src.sync.rootFullSync

Severity

ERROR

Description

This event is issued when a SnapMirror request for going fully synchronous is received for the root volume or aggregate.

Corrective Action

(None).

Syslog Message

Root %s %s not allowed as a fully sync source.

Parameters

volaggr (STRING): Whether volume or aggregate
src (STRING): The SnapMirror source

snapmirror.src.sync.sanitization

Severity

NOTICE

Description

This event is issued when a SnapMirror request for going synchronous is received when SnapMirror features are only enabled due to a sanitization license.

Corrective Action

The sanitization feature only enables certain pieces of SnapMirror functionality. Please license synchronous SnapMirror in order to use synchronous mode.

Syslog Message

The sanitization feature does not allow synchronous SnapMirror to be run from volume %s to volume %s.

Parameters

src (STRING): The source volume name
dst (STRING): The destination volume name

snapmirror.src.sync.tradSameFilerOrHA

Severity

ERROR

Description

This event is issued when a SnapMirror request for going into fully synchronous mode is received for two traditional volumes that reside on the same filer or belong to the same HA pair.

Corrective Action

Fully synchronous SnapMirror does not operate on two traditional volumes on the same filer or on the same HA pair. The volumes can be put into semi-synchronous (i.e. cpsync) mode, or one of the volumes can be moved off the filer or HA pair.

Syslog Message

Fully synchronous SnapMirror cannot run between two traditional volumes on the same filer or HA pair; this mode is not allowed from %s to %s.

Parameters

src (STRING): The source volume name
dst (STRING): The destination volume name

snapmirror.src.threadErr

Severity

ERROR

Description

This event is issued when we are not able to allocate a thread to do SnapMirror source side operations.

Corrective Action

(None).

Concurrent operation resource limit reached, SnapMirror source delayed.

Parameters

(None).

snapmirror.src.versionMismatch

Severity

ERROR

Description

This event is issued when there is SnapMirror version mismatch between the source and destination.

Corrective Action

(None).

Syslog Message

Received SnapMirror request with incompatible version.

Parameters

(None).

snapmirror.src.vfiler.migrating

Severity

ERROR

Description

This message occurs when a SnapMirror® transfer involves a source volume that is a member of a migrating vFiler(tm) unit. In such a case, the SnapMirror transfer aborts.

Corrective Action

Wait for the vFiler migration to be completed, then retry the transfer.

Syslog Message

SnapMirror source volume %s is member of a migrating vFiler unit.

Parameters

src (STRING): SnapMirror source volume

snapmirror.src.vfilerAccess

Severity

ERROR

Description

This event occurs when a SnapMirror source running on a vfiler tries to access a volume that it does not own.

Corrective Action

For a non-default vfiler to act as a SnapMirror source it must own the target volume. Do one of the following: a) use the 'vfiler move' command to make the given vfiler the owner of the volume, b) connect to the default vfiler that has access to all volumes, or c) connect to the vfiler that currently owns the specified SnapMirror source volume. See the na_vfiler man page and MultiStore® documentation for details.

Syslog Message

SnapMirror : vfiler %s tried to use volume %s as a SnapMirror source volume, but the vfiler is not the owner of that volume.

Parameters

vfiler (STRING): The current vfiler's name
src (STRING): The SnapMirror source volume

snapmirror.status events

snapmirror.status.dstUpdateSnapErr

Severity

ERROR

Description

This event is generated when ONTAP cannot update the latest base snapshot for the replication destination. Insufficient disk space on the root volume is the most common reason for this failure.

Corrective Action

Check if the root volume is out of disk space.

Syslog Message

ONTAP could not update the registry with latest snapshot for the destination %s.

Parameters

dstPath (STRING): The destination path

snapmirror.status.illegalSrcPath

Severity

ERROR

Description

This message occurs on a replication source appliance, when ONTAP encounters invalid source path specification while collecting replication statistics.

Corrective Action

Check snapmirror.conf file for any typing mistakes. Typically path names are specified as "filer:volume" or "filer:/vol/volume/qtree". Check snapmirror.conf man page for discussion of path specifications.

Syslog Message

Illegal source path: %s.

Parameters

srcPath (STRING): The Source path.

snapmirror.status.noBaseSnapshot

Severity

ERROR

Description

This message occurs on replication destination appliance when ONTAP can not find the base snapshot used by a replication relation. ONTAP may run into this situation while updating replication statistics at the end of a successful transfer.

Corrective Action

This is most likely a temporary error. Please try the operation again. Check status of the destination volume.

Syslog Message

Can not find base snapshot for %s.

Parameters

dstPath (STRING): The destination path.

snapmirror.status.updateStatusErr

Severity

ERROR

Description

This event is generated when ONTAP cannot update the ONTAP system registry with upgraded snapmirror status information. Insufficient disk space on the root volume is the most common reason for this failure.

Corrective Action

Check if the root volume is out of disk space by issuing the 'df' command from the appliance CLI. If the root volume is full, either free up space or add more disks on the volume.

Syslog Message

ONTAP could not update the ONTAP system registry with upgraded snapmirror status keys.

Parameters

(None).

snapmirror.tradtoflexerr events

snapmirror.tradToFlexErr

Severity

ERROR

Description

This message occurs when the user tries to copy a traditional volume into a flexible volume using SnapMirror®.

Corrective Action

Retry the operation with a traditional volume as the destination.

Syslog Message

snapmirror : A traditional volume cannot be copied into a flexible volume.

Parameters

(None).

snapmirror.unsupportedchksumtype events

snapmirror.unsupportedChksumType

Severity

NOTICE

Description

This message occurs when checksum type crc32c_header_only is configured for a SnapMirror® relationship and the source for the relationship is not compatible with this checksum type.

Corrective Action

(None).

Syslog Message

%s: destination transfer from %s:%s to %s : %s

Parameters

rtype (STRING): Replication type (SnapMirror).
srcfiler (STRING): Replication source system.
srcpath (STRING): Replication source volume.
dstpath (STRING): Replication destination volume.
message (STRING): Specific message.

snapmirror_copy events

snapmirror_copy.updatetimeincreased events

snapmirror_copy.UpdateTimeIncreased

Severity

NOTICE

Description

This message occurs when the update time taken by the latest transfer is 5 minutes more than the previous three transfer times.

Corrective Action

(None).

Syslog Message

Update time for volume %s has increased.

Parameters

dstpath (STRING): Destination volume.

snaprestore events

snaprestore.fail events

snaprestore.fail.volume.size

Severity

ALERT

Description

This message occurs when a SnapRestore® operation on a volume fails due to insufficient space in the target volume to hold the data present in the snapshot.

Corrective Action

Resize the target volume to the recommended minimum size.

Syslog Message

SnapRestore operation failed: volume %s is too small to hold the data present in the snapshot. Minimum size of the target volume required is %s.

Parameters

volume (STRING): Volume name.
volsize (STRING): Recommended minimum size of the target volume.

snaprestore.log events

snaprestore.log.overalloc

Severity

EMERGENCY

Description

This message occurs during a SnapRestore™ operation, of a volume when the logical used space in the volume is greater than the total size of the volume and the Logical Space View enforcement feature was turned ON on the volume after creating the snapshot. This maight cause client modify operations to fail on the volume.

Corrective Action

Create space by increasing the volumei size, or by deleting data or deleting snapshots. To increase a volume's size, use the "volume size" command. To delete a volume's snapshots, use the "volume snapshot delete" command.

Syslog Message

During SnapRestore operation, volume %s in aggregate %s was logically overallocated during snap restore operation. It may impact client modify operations.

Parameters

volume (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.

snaptags events

snaptags.file events

snaptags.file.inconsist

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the header of a snapshot tag's metafile of a volume. The snapshot tags for all of the snapshots on the volume are considered lost. The next snapshot tag update starts from a clean metafile.

Corrective Action

(None).

Syslog Message

An inconsistency was detected in the snapshot tag's metafile on volume '%s'. The snapshot tags for all of the snapshots on the volume are lost.

Parameters

vol (STRING): Name of the volume.

snaptags.snap events

snaptags.snap.inconsist

Severity

NOTICE

Description

This message occurs when the system detects inconsistency of snapshot-specific information in the snapshot tag's metafile on a volume. The tags for the snapshot are considered lost. The next tag update for the snapshot starts without any existing tag.

Corrective Action

(None).

Syslog Message

An inconsistency of snapshot tags was detected for snapshot ID '%d' on volume '%s'. The tags for the snapshot are lost.

Parameters

snapid (INT): Physical snapshot ID on the volume.
vol (STRING): Name of the volume.

snapvault events

snapvault.dst events

snapvault.dst.bkpSnapCreate

Severity

INFORMATIONAL

Description

This message occurs when SnapVault® creates a backup snapshot for a given backup schedule.

Corrective Action

(None).

Syslog Message

A backup snapshot was created on volume %s by backup schedule %s (%d of %d allocated snapshot copies consumed).

Parameters

vol_name (STRING): Name of the SnapVault secondary volume on which the backup snapshot is created.
target_name (STRING): Base name of the backup schedule for which the given backup snapshot is created.
snap_cnt (INT): Total number of backup snapshots created for the given backup schedule.
alloc_cnt (INT): Total number of backup snapshots allocated for the given backup schedule.

snapvault.dst.bliDataRepaired

Severity

NOTICE

Description

This message is issued when SnapVault may have repaired data that had previously been made incorrect/incomplete by Bug #137685 which has now been fixed. Under some conditions this message may be issued when, in fact, the data was not previously incorrect or incomplete. Under some conditions, the SnapVault code cannot determine whether the previous version of the data was correct or not, but it does know that after the current transfer completes that the data is correct. This message will only be issued if the hidden snapvault option, repair_bug137685_stats is enabled.

Corrective Action

(None).

Syslog Message

ONTAP changed data in %d data chunk(s) in %s which may have been missing or incorrect.

Parameters

chunks_repaired (INT): The number of of chunks which may have been repaired. Up to 2MB of data may be sent in a chunk in the QSM/SnapVault data format. This count is incremented for each chunk in which one or more 4K blocks may have been repaired.
dst_path (STRING): Destination qtree path.

snapvault.dst.bliWarning

Severity

ERROR

Description

This event is issued when SnapVault has detected that OSSV secondary data may be incomplete or incorrect.

Corrective Action

See the public reports for Bug #137685 and Bug #140930 for corrective action.

Syslog Message

ONTAP has detected a condition in which OSSV secondary data for %s may be incomplete or incorrect. See the public reports for Bug #137685 and Bug #140930 for corrective action.

Parameters

dst_path (STRING): Destination qtree path.

snapvault.dst.lowSnapWarn

Severity

ERROR

Description

This message occurs when the remaining number of snapshots allocated for a given SnapVault® backup schedule on the given volume reaches or falls below the preset warning level. This event occurs on every failed attempt by SnapVault to create a backup snapshot on the given backup schedule, until you resolve the condition.

Corrective Action

Consider deleting some backup snapshots from the given backup target to create some free slots. For more information and other solutions, see the Online Backup Recovery Guide.

Syslog Message

Remaining number of snapshots on the volume %s for the backup schedule %s is below the set warning level (%d of allocated %d).

Parameters

vol_name (STRING): Name of the SnapVault secondary volume on which the backup snapshot is created.
target_name (STRING): Base name of the backup schedule for which the given backup snapshot is created.
snap_cnt (INT): Total number of backup snapshots created for the given backup schedule.
alloc_cnt (INT): Total number of backup snapshots allocated to the given backup schedule.

snapvault.dst.opNotComplete

Severity

NOTICE

Description

This message occurs when SnapVault® cannot complete a transfer normally, due to resource unavailability or SnapVault being off.

Corrective Action

None needed. SnapVault periodically attempts to complete this transfer.

Syslog Message

(None).

Parameters

dst_path (STRING): Destination qtree path.
snapvault_on (INT): SnapVault enabled? - on(1) or off(0)

snapvault.dst.updateDelayed

Severity

INFORMATIONAL

Description

This message occurs when an update request is received on a destination qtree that is being used as the source for another transfer.

Corrective Action

(None).

Syslog Message

%s: Update from %s:%s to %s:%s is delayed because another update, %s:%s to %s:%s, is already in progress.

Parameters

type (STRING): SnapVault® transfer type.
srcfiler1 (STRING): SnapVault source system.
srcpath1 (STRING): SnapVault source qtree.
dstfiler1 (STRING): SnapVault destination system for first transfer (in progress). Source for second transfer (delayed).
dstpath1 (STRING): SnapVault destination qtree for first transfer. Source for second transfer.
srcfiler2 (STRING): SnapVault destination system for first transfer. Source for second transfer.
srcpath2 (STRING): SnapVault destination qtree for first transfer. Source for second transfer.
dstfiler2 (STRING): Destination system for second transfer.
dstpath2 (STRING): Destination qtree for second transfer.

snapvault.qtree events

snapvault.qtree.initiate

Severity

NOTICE

Description

This message occurs when SnapVault® cannot start a volume-wide snapshot target to complete a manually invoked baseline transfer or resynchronizing transfer. As a result, the changes to the qtree in that operation will not yet be made visible. SnapVault attempts to repair this condition.

Corrective Action

(None).

Syslog Message

Could not coalesce %s: %s.

Parameters

qtpath (STRING): Path of the qtree in the operation.
reason (STRING): Reason why SnapVault could not start the snapshot target.

snapvault.qtree.notCoalesced

Severity

ERROR

Description

This message occurs when SnapVault® fails to initiate a qtree into a SnapVault coalescing cycle.

Corrective Action

If the error is transient, the next SnapVault coalescing cycle tries to initiate the qtree into the coalescing cycle. Otherwise, see the error message for details.

Syslog Message

Could not initiate %s into SnapVault coalescing cycle: %s.

Parameters

qtpath (STRING): Path of the qtree in the operation.
errstr (STRING): Error string.

snapvault.qtree.upgradeStatus

Severity

NOTICE

Description

During initialization, SnapVault will attempt to update the qtree metadata flag if necessary. This message is generated if the qtree has been converted but an error occurs in updating the status entry.

Corrective Action

(None).

Syslog Message

Could not update the status entry for %s. Entry will be updated during the next transfer.

Parameters

srcpath (STRING): The pathname for the qtree.

snapvault.reg events

snapvault.reg.unknownOpt

Severity

NOTICE

Description

This message occurs when you downgrade from a kernel with newer version to one with an older version and the system attempts to read a registry entry that is supported only in the newer version of the kernel.

Corrective Action

(None).

Syslog Message

Unsupported registry entry: (%s).

Parameters

regopt (STRING): Unrecognized registry entry for the older version of the kernel.

snapvault.src events

snapvault.src.notEnabled

Severity

ERROR

Description

This message occurs when a SnapVault® source appliance receives a transfer request when the service is not enabled. The license needed depends on the transfer type. For SnapVault restore transfers, the appliance must have a secondary license. For other transfers, the appliance must have a primary license.

Corrective Action

Enable the service by issuing the command 'options snapvault.enable on'. You might need to license the service before you enable it.

Syslog Message

Command request (%d) from host %s while SnapVault is not enabled.

Parameters

cmd (INT): Protocol command number for the type of transfer being requested.
dst_ip (STRING): IP address of the destination issuing the transfer request.

snapvault.src.volume.migrating

Severity

ERROR

Description

This message occurs when a SnapVault® snapshot target is initiated on a SnapVault primary volume while the volume is being migrated. The target might have been scheduled or manually invoked (through the 'snapvault snap create' command or programmatic interfaces).

Corrective Action

Wait for the volume migration to be completed.

Syslog Message

SnapVault primary volume %s is currently being migrated.

Parameters

volname (STRING): Name of the SnapVault primary volume, on which the target is invoked.

snapvault.sys events

snapvault.sys.internal

Severity

ERROR

Description

This message occurs when SnapVault® encounters an internal error.

Corrective Action

Turn off SnapVault and restart it.

Syslog Message

An internal error occurred in SnapVault®: %s.

Parameters

reason (STRING): Reason for the internal error.

snapvault.sys.upgrade

Severity

ERROR

Description

During initialization, SnapVault will attempt to update all the qtree metadata flags if necessary. This message is generated if there is insufficient memory to perform this operation.

Corrective Action

Convert the qtrees manually or contact NetApp technical support to help.

Syslog Message

Low on memory. Can't automatically convert snapvault qtrees right now, so backups will fail. Convert the qtrees manually or contact NetApp technical support to help.

Parameters

(None).

snapvault.sys.vfilerOn

Severity

INFORMATIONAL

Description

This message occurs when SnapVault® is enabled on a vfiler during shutdown, where it is expected to be disabled.

Corrective Action

None needed. This is for information only.

Syslog Message

(None).

Parameters

vfiler (STRING): Name of the vfiler.

snapvault.tgt events

snapvault.tgt.dupCoalesced

Severity

NOTICE

Description

This message occurs when SnapVault® detects more than one coalesced snapshot of a specific type in a SnapVault secondary volume. SnapVault attempts to repair this condition.

Corrective Action

(None).

Syslog Message

Detected multiple coalesced %s snapshots in volume %s.

Parameters

snaptype (STRING): Type of coalesced snapshot that has duplicates.
volume (STRING): Name of the SnapVault secondary volume on which the target was invoked.

snapvault.tgt.failure

Severity

ERROR

Description

This message occurs when a SnapVault® snapshot target fails, either because it could not start or because it encountered an error while processing. The target could have been scheduled or manually invoked

(through the 'snapvault snap create' command or programmatic interfaces).

Corrective Action

The corrective action depends on the cited reason regarding why the snapshot target could not start or why it failed. After you correct the situation, invoke the snapshot target again, or wait for the next scheduled invocation. If the volume could not be found, make sure that it is online, check the spelling of the volume name, and correct the SnapVault snapshot schedule if it is misspelled. If the target could not start due to a temporary lack of resources (such as threads or memory), no corrective action might be necessary, because SnapVault periodically retries the operation. If the problem persists, you might need to schedule SnapVault and/or other services to run less frequently. If the target could not create a snapshot, or could not create or write either data or metadata to the volume, check whether the volume has any available space, inodes, and snapshots. If any of these have been exhausted, free some up for SnapVault use. If the target didn't run because it is not a create target, install a SnapVault secondary license or unconfigure the target. If the target didn't run because some other service is actively using the volume and would interfere with SnapVault, either stop that service or wait for it to be completed.

Syslog Message

Could not create snapshot target "%s" on volume %s: %s.

Parameters

snapname (STRING): Base name of the snapshot that the target was meant to create.
volume (STRING): Name of the SnapVault secondary volume on which the target was invoked.
reason (STRING): Reason why the target could not start, or the specific error encountered during processing.

snapvault.tgt.NBUfailure

Severity

ERROR

Description

This event occurs when a snapshot creation on the destination volume used to back up primary qtrees using SnapVault(tm) managed by VERITAS® NetBackup® fails. Because the snapshot creation failure also causes the NetBackup backup request to fail, this is considered an error. This failure occurs when the number of snapshots in the volume exceeds the maximum limit, there is insufficient disk space in the destination volume, or the destination volume is offline or restricted.

Corrective Action

Use the 'snap list volname' command to list the snapshots in the volume and to see whether there are close to 255 snapshots (the maximum). Use the 'df -k' command to check the amount of disk space available in the volume. If either of these conditions is the cause of the failure, contact the NetBackup Administrator and ask for some old backups stored on this volume to be deleted. This results in both the number of snapshots being reduced and disk space getting freed. Also check the status of the volume by using the 'vol status' command to confirm that the volume is offline or restricted. If it is, use the 'vol online volname' command to bring the volume online.

Syslog Message

SnapVault snapshot creation for volume (%s) failed.

Parameters

volume (STRING): The name of the destination volume for which the snapshot creation failed.

snapvault.tgt.qtreeIgnore

Severity

ERROR

Description

This message occurs when SnapVault® intentionally ignores a configuration entry for a secondary qtree. After ignoring it once, SnapVault continues ignoring the qtree (silently) until you update the qtree manually, until you restart the SnapVault service, or until the next boot.

Corrective Action

The corrective action depends on the cited reason regarding why the qtree configuration was ignored. Frequently, the qtree simply doesn't exist, in which case the configuration entry is stale and should be removed (through the 'snapvault stop' command). If the qtree was ignored due to some transient reason, you need to manually update the qtree, or disabled and reenable SnapVault to begin operating on the qtree again.

Syslog Message

Ignoring configuration entry for %s in volume %s: %s.

Parameters

qtpath (STRING): Path to the qtree whose configuration entry was ignored.
volume (STRING): Name of the SnapVault secondary volume with the ignored configuration entry.
reason (STRING): Reason why the qtree configuration was ignored.

snapvault.tgt.unstableSnap

Severity

ERROR

Description

This message occurs when SnapVault® detects a coalesced snapshot with transitioning qtree replicas. If this event occurs, it suggests that archive snapshots might have captured some SnapVault secondary qtrees in a transitioning state, which you can verify by running the 'snap list -q' command. SnapVault attempts to recover from this situation, but that only affects new archive snapshots created after the event, and not any existing snapshots.

Corrective Action

(None).

Syslog Message

Recovery detected %s snapshot with transitioning qtrees in volume %s.

Parameters

snaptype (STRING): Type of coalesced snapshot that contains transitioning SnapVault qtree replicas.
volume (STRING): Name of the SnapVault secondary volume on which the target was invoked.

snmp events

snmp.authentication events

snmp.authentication.failure

Severity

ERROR

Description

This message occurs when there is an authentication failure during an SNMP query. This trap is generated for all SNMP versions.

Corrective Action

In case of SNMPv1/v2c check whether the SNMP community string is configured. In case of SNMPv3, check whether SNMPv3 authentication credentials are correctly configured. The SNMPv3 credentials include username, password, authentication protocol, authentication protocol password, privacy protocol and privacy protocol password.

Syslog Message

Authentication failure for SNMP query from port: %d.

Parameters

interface (INT): Port on which the SNMP authentication failed.

snmp.coldstart events

snmp.coldstart.trap

Severity

INFORMATIONAL

Description

This message occurs when the SNMP daemon is reinitializing itself with a coldStart. A coldStart(0) trap signifies that configuration changes are made to the agent or the protocol entity implementation during the reinitialization.

Corrective Action

(None).

Syslog Message

SNMP daemon was reinitialized with configuration changes.

Parameters

(None).

snmp.fips events

snmp.fips.objs.del.failed

Severity

ERROR

Description

This message occurs when the system fails to delete SNMP traphosts and users that are not FIPS compliant. The system tries to automatically delete them when FIPS is configured in the cluster. The SNMP traphosts and users that are left become inoperable.

Corrective Action

Delete remaining noncompliant SNMP traphosts first by using the "system snmp traphost delete" command. Then delete the remaining noncompliant SNMP users by using the "security login delete" command. The following SNMP users and traphosts are not FIPS compliant: 1. SNMPv1 users, SNMPv2c users, and SNMPv3 users having "none" or "MD5" as the authentication method or having "none" or "DES" as the encryption protocol. 2. SNMPv1 traphosts and SNMPv3 traphosts configured with a user that is not FIPS compliant.

Syslog Message

Failed to delete SNMP traphosts and users that are not FIPS compliant.

Parameters

(None).

snmp.fips.support

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP is operating in FIPS compliant mode but SNMPv3 is configured with non-compliant/weaker ciphers or hash algorithms. Hence SNMPv3 is disabled.

Corrective Action

(None).

Syslog Message

Data ONTAP is operating in FIPS compliant mode and SNMPv3 is configured with non-compliant ciphers or hash algorithms. Hence SNMPv3 is disabled.

Parameters

(None).

snmp.link events

snmp.link.down

Severity

INFORMATIONAL

Description

This message occurs when a network interface is down.

Corrective Action

If this message is not followed by a LinkUp message, the cluster administrator should manually check the link state with the "network port show" command, verifying that the port is administratively up. If the link state is still down and the port is not intentionally disabled, there might be a physical network problem: 1. Verify the switch has the corresponding port administratively and operationally up. 2. Verify that the network cable between the storage controller port and the corresponding switch is connected to the correct port and is not damaged. 3. Verify the integrity of the network cable with a cable tester, or swap in another cable known to be in good condition. 4. For further information or assistance contact NetApp technical support

Syslog Message

Interface %d is down.

Parameters

interface (INT): Number of the interface.

snmp.link.up

Severity

INFORMATIONAL

Description

This message occurs when a network interface is up.

Corrective Action

(None).

Syslog Message

Interface %d is up

Parameters

interface (INT): The number of the interface

snmp.raid events

snmp.raid.iterator.failure

Severity

ERROR

Description

This event is generated when a RAID group iterator was not able to be created.

Corrective Action

Check for other resource related issues.

Syslog Message

SNMP failed to create RAID group iterator

Parameters

(None).

snmp.server events

snmp.server.busy

Severity

ERROR

Description

This message occurs when the SNMP daemon is busy serving a high rate of incoming SNMP queries. This might be caused by multiple SNMP clients querying the cluster or a malicious client attempting a denial-of-service attack. SNMP clients might experience delays or timeouts.

Corrective Action

Run "tcpdump" on cluster to determine: If multiple SNMP clients querying the cluster, then reduce the rate of SNMP queries to the cluster or stop them entirely for a period of time (~15 minutes). If a malicious SNMP client is trying a denial-of-service attack, then update the firewall policy to block the client from querying the cluster by using the "firewall policy modify -policy mgmt -service snmp -action deny -ip-list IP_address" command.

Syslog Message

SNMP daemon is busy serving a high rate of incoming SNMP queries.

Parameters

(None).

snmp.snmpv3 events

snmp.snmpv3.enable

Severity

ERROR

Description

This message occurs when SNMPv3 is disabled due to a cluster in FIPS mode being upgraded to a version of ONTAP® software supporting the SNMPv3 FIPS feature. FIPS compliance adds more stringent limitations on SNMP users and SNMP traphosts, so SNMPv3 access has been disabled to allow the current SNMP users and SNMP traphosts to be reevaluated. If SNMPv3 functionality is required, you can reenable it; if cluster is still in FIPS mode at that time, any existing SNMP users and SNMP traphosts that are noncompliant to FIPS will be deleted. Until SNMPv3 is reenabled, SNMPv3 users cannot be created, SNMPv3 traphosts cannot be added and SNMPv3 packets will not be processed.

Corrective Action

Enable SNMPv3 in the cluster by using the 'system snmp enable-snmpv3' command.

Syslog Message

SNMPv3 is disabled due to a cluster in FIPS mode being upgraded to a version of ONTAP® software supporting the SNMPv3 FIPS feature.

Parameters

(None).

snmp.traphost events

snmp.traphost.resolve.failed

Severity

ERROR

Description

The snmp daemon could not resolve (find an IP address via DNS for) a traphost. The appliance will try again in an hour to resolve the traphost.

Corrective Action

Make sure that the network, including the domain server and traphost, are connected, running, and configured correctly. If you fix this problem, wait until the next retry or run 'snmp init 1' to force a resolve. If you don't fix this problem, you may want to remove this traphost from the list. Attempting to resolve traphosts may take time because of network timeouts.

Syslog Message

snmp: cannot send traps to '%s' because it could not be resolved via DNS. Retries occur hourly.

Parameters

host (STRING): The host that could not be resolved via a DNS lookup.

snmp.warmstart events

snmp.warmstart.trap

Severity

INFORMATIONAL

Description

This message occurs when the SNMP daemon is reinitializing itself with a warmStart. A warmStart(1) trap signifies that no configuration changes are made to the agent or the protocol entity implementation during the reinitialization.

Corrective Action

(None).

Syslog Message

SNMP daemon was reinitialized with no configuration changes.

Parameters

(None).

socket events

socket.limit events

socket.limit.exceeded

Severity

NOTICE

Description

This message occurs when the operating system is unable to allocate a new socket because that would exceed the maximum open sockets.

Corrective Action

(None).

Syslog Message

The operating system was unable to allocate a socket. The number of open sockets is %d and the limit is %d.

Parameters

num_open_sockets (INT): The number of open sockets.
max_sockets (INT): The maximum allowed number of open sockets.

socket.sndbuflimit events

socket.sndbuflimit.exceeded

Severity

ERROR

Description

This message occurs when an overflow is detected in the TCP socket send buffer. The TCP socket send buffer can hold a maximum of INT_MAX (2147483647) bytes.

Corrective Action

Excessive unacknowledged data in the socket send buffer is commonly due to an overloaded client that is extremely slow to send TCP acknowledgments or completely stops doing so. Examine the client and take actions to address the client behavior.

Syslog Message

The system (%s:%d) could not send data to client %s due to an overflow in the TCP socket send buffer. The buffer can hold a maximum of %d bytes.

Parameters

server_address (STRING): IP address of the server.
port (INT): Local port bound to the socket.
client_address (STRING): IP address of the client.
socket_buffer_limit (INT): Maximum allowed number of bytes in socket buffer.

sp events

sp.auth events

sp.auth.loginDenied

Severity

NOTICE

Description

This message occurs when a login is attempted on the node's Service Processor (SP) or baseboard management controller (BMC) and the login is denied.

Corrective Action

(None).

Syslog Message

BMC or SP login authentication failure for user "%s" from %s.

Parameters

user (STRING): User the login was attempted with.
fromhost (STRING): Where the login was attempted from.

sp.authlog events

sp.authlog.failure

Severity

ERROR

Description

This message occurs when the Service Processor (SP) or baseboard management controller (BMC) fails to log an authentication event in the system event log (SEL).

Corrective Action

1. Use the "system service-processor reboot-sp" command to reboot the SP or BMC. 2. If the failure persists, contact NetApp technical support

Syslog Message

BMC or SP failed to log an authentication event in the SEL.

Parameters

(None).

sp.autoconfig events

sp.autoconfig.out.of.address

Severity

ERROR

Description

This message occurs when the system cannot automatically obtain IP configuration because the subnet associated with the Service Processor does not have any available IP addresses.

Corrective Action

Expand the subnet range to include more IP addresses with command "network subnet add-ranges". If failures persist, contact NetApp technical support.

Syslog Message

(None).

Parameters

subnet (STRING): Name of the subnet associated with the Service Processor.

sp.autoupd events

sp.autoupd.partner.offline

Severity

ERROR

Description

This message occurs when a Service Processor (SP) or baseboard management controller (BMC) firmware automatic update is cancelled because the high-availability (HA) partner node is offline.

Corrective Action

Ensure that the HA partner node is online for SP or BMC firmware autoupdate to occur. Use the "cluster show" and "storage failover show" command output to evaluate the state of the HA partner node.

Syslog Message

SP autoupdate cancelled because the HA partner node is offline.

Parameters

(None).

sp.autoupdate events

sp.autoupdate.toggle

Severity

INFORMATIONAL

Description

This message occurs when the Service Processor (SP) AutoUpdate option is enabled or disabled.

Corrective Action

(None).

Syslog Message

%s.

Parameters

reason (STRING): SP AutoUpdate feature has changed state.

sp.device events

sp.device.fw.mismatch

Severity

ERROR

Description

This message occurs when the service processor (SP) detects a firmware version mismatch among the devices managed by the SP.

Corrective Action

Contact NetApp technical support to update the firmware.

Syslog Message

Device firmware version mismatch detected: %s

Parameters

mismatch (STRING): Description of the device names, current device firmware versions, and expected versions.

sp.dhcp events

sp.dhcp.failure

Severity

ERROR

Description

This message occurs when the Service Processor (SP) cannot obtain network configuration data through DHCP. The SP cannot be reached from the network.

Corrective Action

Verify that DHCP services are available, or configure the SP with a static address. If failures persist, contact NetApp technical support.

Syslog Message

Service Processor cannot obtain network configuration using DHCP.

Parameters

(None).

sp.dup events

sp.dup.ip

Severity

ERROR

Description

This message occurs when another system has been detected to be using the same IP address as the one configured on the Service Processor (SP).

Corrective Action

If the network in question has been configured to use this address as a static address, change the configured IP address on at least one system to ensure that only one system is using this address. If the network is configured to use DHCP, ensure that this address is not a static IP address that falls within the range being used by the DHCP server.

Syslog Message

SP IP address %s in use by another system.

Parameters

ipaddr (STRING): IP address.

sp.eth events

sp.eth.switch.upd.failed

Severity

ERROR

Description

This message occurs when Service Processor (SP) or Baseboard Management Controller (BMC) fails to auto-update the internal Ethernet switch.

Corrective Action

1. Perform a manual Ethernet Switch update from SP or BMC CLI. 2. If the failures persist, contact NetApp technical support.

Syslog Message

%s Ethernet switch auto-update failed.

Parameters

sp_type (STRING): SP type

sp.eth.switch.upd.start

Severity

NOTICE

Description

This message occurs when the Service Processor (SP) or Baseboard Management Controller (BMC) starts an internal Ethernet switch auto-update. During the Ethernet switch update, SP or BMC and e0M network connections might be temporarily affected.

Corrective Action

(None).

Syslog Message

%s is starting Ethernet switch auto-update %s.

Parameters

sp_type (STRING): SP type
switch_ver (STRING): Current and bundled switch version.

sp.eth.switch.upd.success

Severity

NOTICE

Description

This message occurs when the Service Processor (SP) or Baseboard Management Controller (BMC) completes an internal Ethernet switch auto-update.

Corrective Action

(None).

Syslog Message

%s Ethernet switch version updated %s.

Parameters

sp_type (STRING): SP type
switch_ver (STRING): Previous and updated switch version.

sp.firmware events

sp.firmware.corruption

Severity

ALERT

Description

This message occurs when neither of the firmware images of the node's Service Processor (SP) or Baseboard Management Controller (BMC) on the primary flash chip can be booted. The SP or BMC is now running from the image on the spare flash storage. The SP or BMC spare image does not have all the features of the primary image, and it does not support updating the primary flash images.

Corrective Action

Contact NetApp technical support to recover the primary flash chip.

Syslog Message

"%s" is running from the spare recovery flash storage.

Parameters

sp_type (STRING): Service processor type (SP or BMC).

sp.firmware.incompatible

Severity

ALERT

Description

This message occurs when the firmware on the Service Processor (SP) is not compatible with this version of Data ONTAP®.

Corrective Action

Update the SP firmware to a version supported by this version of Data ONTAP. Contact NetApp technical support to obtain SP firmware files and update instructions, and for further assistance if the error persists after SP firmware is updated. Additional support might be available from the vendor's support site or knowledge base.

Syslog Message

The SP firmware version %s is not compatible with this version of Data ONTAP.

Parameters

current_sp_fw_version (STRING): Current firmware version on the SP.

sp.firmware.upgrade.reqd

Severity

ALERT

Description

This message occurs when the Service Processor (SP) firmware version and the Data ONTAP® software version are incompatible and cannot communicate correctly about a particular capability.

Corrective Action

Update the firmware version of the SP to the version recommended for your version of Data ONTAP. Contact NetApp technical support to get a copy of the appropriate SP firmware and SP firmware update instructions. For more information about downloading and installing updated firmware, check your support provider's support web site or knowledgebase. If you need further assistance, contact NetApp technical support. After you update the firmware, this message should no longer occur. If the message occurs again, contact NetApp technical support and explain that you already updated the firmware to the recommended version.

Syslog Message

The SP firmware %s is incompatible with Data ONTAP for %s.

Parameters

> **current_sp_fw_version** (STRING): Current firmware version on the SP.
> **capability** (STRING): SP capability needed by Data ONTAP.

sp.firmware.version.unsupported

Severity

> ALERT

Description

> This message occurs when the firmware on the Service Processor (SP) is not an official release and must be updated.

Corrective Action

> Contact NetApp technical support to get a copy of the recommended version of SP firmware and SP firmware update instructions. For more information about downloading and installing updated firmware, check your support provider's web site or knowledgebase. If you need further assistance, contact NetApp technical support. After the SP is running the new firmware, this message should no longer occur. If the message occurs again, contact NetApp technical support and explain that you already updated the firmware to the recommended version.

Syslog Message

> The SP firmware version %s is not an official release.

Parameters

> **current_sp_fw_version** (STRING): Current firmware version on the SP.

sp.heartbeat events

sp.heartbeat.resumed

Severity

> INFORMATIONAL

Description

> This event is generated when the appliance detects resumption of Service Processor (SP) heartbeat notifications indicating that the Service Processor is now available. The earlier issue indicated by the sp.heartbeat.stopped event has been resolved.

Corrective Action

> (None).

Syslog Message

> Received %s heartbeat from the Service Processor (SP).

Parameters

> **type** (STRING): Heartbeat from Service Processor can be of the following types: 1. IPMI Heartbeat 2. Packetized heartbeat. This parameter specifies which type of heartbeat this event corresponds to.

sp.heartbeat.stopped

Severity

INFORMATIONAL

Description

This event is generated when Data ONTAP does not receive Service Processor (SP) heartbeat notifications. The Service Processor and Data ONTAP exchange heartbeat messages so that they can detect when one or the other is unavailable. This event is generated when Data ONTAP has not received an expected heartbeat message from the Service Processor.

Corrective Action

1. Connect to the SP CLI and issue: 1.1. sp version 1.2. priv set advanced 1.3. sp log debug 1.4. sp log messages 2. Run SP system diagnostics. 3. Consult Service Processor Troubleshooting Guide.

Syslog Message

Have not received a %s heartbeat from the Service Processor (SP) in last %d seconds.

Parameters

type (STRING): Heartbeat from Service Processor can be of the following types: 1. IPMI Heartbeat 2. Packetized heartbeat. This parameter specifies which type of heartbeat this event corresponds to.
time (INT): Heartbeats have not been received from the Service Processor (SP) for this period of time in seconds.

sp.ipmi events

sp.ipmi.lost.shutdown

Severity

EMERGENCY

Description

This message occurs when Data ONTAP® is no longer receiving the heartbeats from the Service Processor (SP) after all the SP recovery actions have been taken. Without the SP, Data ONTAP cannot monitor the health of the hardware. To prevent hardware damage and data loss, the system will shut down.

Corrective Action

Power-cycle the sytem by pulling the controller out from the chassis, pushing it back in, then powering it on. If the problem persists, replace the controller module.

Syslog Message

SP heartbeat stopped and cannot be recovered. To prevent hardware damage and data loss, the system will shut down in %d minutes.

Parameters

num_minutes (INT): Number of minutes until the system shuts down.
object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

sp.log events

sp.log.partition.full

Severity

ERROR

Description

This message occurs when the available memory of the log partition in the Service Processor (SP) or the Baseboard Management Controller (BMC) is low. If the log partition is full, it might lead to unexpected configuration issues.

Corrective Action

1. Run the "system autosupport invoke -node <node-name> -type all" command from the ONTAP CLI to collect the SP or BMC logs before they can be cleared. Verify from the command output that the logs were transferred. 2. During the next maintenance cycle, execute the following commands from the SP or BMC CLI to clear the log partition: a. "priv set diag" b. "bmc wipeclean" for BMC or "sp wipeclean" for SP c. "bmc reboot" for BMC or "sp reboot" for SP The SP or BMC "wipeclean" command clears all the configuration and logs from the SP or BMC. After you reboot, wait for 10 minutes to allow ONTAP to resync the configuration before performing any action.

Syslog Message

%s Log partition is almost full.

Parameters

sp_type (STRING): Service processor type (SP or BMC)

sp.log.partition.readonly

Severity

ALERT

Description

This message occurs when the node's Service Processor (SP) or Baseboard Management Controller (BMC) log partition is mounted as read-only. Recovery steps already have been tried automatically by the firmware, but the recovery efforts were not successful. If the log partition is mounted as read-only, the BMC or SP will not be able to record logs, configuration updates from ONTAP will fail, and ONTAP might not display the current BMC or SP status.

Corrective Action

Search the support site knowledgebase for this event ID.

Syslog Message

Log partition "%s" could not be recovered and is mounted as read-only.

Parameters

sp_type (STRING): Service processor type (SP or BMC)

sp.log.partition.readwrite

Severity

NOTICE

Description

This message occurs when the node's Service Processor (SP) or Baseboard Management Controller (BMC) log partition is remounted as read-write after a SP or BMC reboot to recover from a log partition in a read-only state.

Corrective Action

(None).

Syslog Message

Log partition "%s" has been remounted as read-write after recovery from a read-only state.

Parameters

sp_type (STRING): Service processor type (SP or BMC)

sp.network events

sp.network.ipv6.disable

Severity

ERROR

Description

This message occurs when either a user or the system disables the network IPv6 option and the service processor (SP) is configured only with an IPv6 address.

Corrective Action

Ensure that the service processor (SP) is configured with an IPv4 address prior to disabling the network IPv6 option.

Syslog Message

The IPv6 address can be disabled only if the IPv4 address is enabled.

Parameters

(None).

sp.network.ipv6.notifdisable

Severity

NOTICE

Description

This message occurs when the IPv6 address of Service Processor (SP) is disabled as network IPv6 option of the system is disabled either by user or by cluster configuration.

Corrective Action

If IPv6 usage is desired, enable network IPv6 option of the system and assign IPv6 address to SP.

The IPv6 address of service processor SP is disabled.

Parameters

(None).

sp.network.link.down

Severity

ERROR

Description

This message occurs when the Service Processor (SP) detects a link error on the SP network port. This can happen if a network cable is not plugged into the SP network port. It can also happen if the network that the SP is connected to cannot run at 10/100 Mbps.

Corrective Action

1. Check whether the network cable is correctly plugged into the SP network port. 2. Check the link status LED on the SP. 3. Verify that the network that the SP is connected to supports autonegotiation to 10/100 Mbps or is running at one of those speeds; otherwise, SP network connectivity does not work.

Syslog Message

Service Processor (SP) network port link down due to cable or network errors.

Parameters

(None).

sp.notconfigured events

sp.notConfigured

Severity

ERROR

Description

This message occurs weekly to remind you to configure the Service Processor (SP). The SP is a physical device that is incorporated into your system to provide remote access and remote management capabilities. To use the full functionality of the SP, you need to configure it first.

Corrective Action

1. Use the 'system service-processor network modify' command to configure the SP. If necessary, use the 'system service-processor network show' command to obtain its MAC address. 2. Use the 'system service-processor network show' command to verify the SP network configuration. 3. Use the 'system service-processor autosupport invoke' command to verify that the SP can send AutoSupport email. Note that AutoSupport mailhosts and recipients must be properly configured in Data ONTAP® before issuing this command.

Syslog Message

The system's Service Processor (SP) is not configured. Use the 'system service-processor network modify' command to configure it.

Parameters

object_type (STRING): Type of resource object under notification. For this EMS, the object_type will always be NODE.
object_uuid (STRING): UUID of the resource object. For this EMS, the UUID will be of the node.

sp.orftp events

sp.orftp.failed

Severity

NOTICE

Description

This message occurs when there is a communication error while sending information to or receiving information from the Service Processor (SP). This error could be due to a communication error while the information is being sent or received, or the SP might not be operational.

Corrective Action

1. Run the 'system service-processor show' command at the Data ONTAP prompt to check whether the SP is operational. 2. If the SP is operational and this message persists, run the 'system service-processor reboot-sp' command at the Data ONTAP prompt to reboot the SP. 3. If this message persists after the SP has been rebooted, contact NetApp technical support.

Syslog Message

SP communication error, %s.

Parameters

reason (STRING): Reason for the failure.

sp.postupd events

sp.postupd.ck.unexpt.sp.rev

Severity

ERROR

Description

This message occurs after a scheduled firmware update, when the servprocd daemon detects that the Service Processor(SP) firmware version changed to an unexpected value.

Corrective Action

Check whether the SP firmware has been updated through the SP CLI. If not: 1. Manually update the SP firmware. 2. If the failures persist, contact NetApp technical support.

Syslog Message

%s.

Parameters

reason (STRING): Reason for the failure: %s.

sp.reboot events

sp.reboot.ro.partition

Severity

NOTICE

Description

This message occurs when the node's Service Processor (SP) or Baseboard Management Controller (BMC) log partition is mounted as read-only after an internal error has occurred. The system automatically reboots the SP or BMC to attempt to remount the log partition as read-write.

Corrective Action

(None).

Syslog Message

Rebooting the %s because the log partition is in a read-only state.

Parameters

sp_type (STRING): Service processor type (SP or BMC)

sp.reboot.sensor.unreadable

Severity

NOTICE

Description

This message occurs when one or more sensors are unreadable from Service Processor (SP) or Baseboard Management Controller (BMC).SP or BMC is rebooted in attempt to recover the sensor reading.

Corrective Action

No user action is required.

Syslog Message

Rebooting %s because one or more sensors are unreadable.

Parameters

sp_type (STRING): Service processor type (SP or BMC).

sp.servprocd events

sp.servprocd.upd.error

Severity

ERROR

Description

This message occurs in the following cases: 1. Scheduling of Service Processor (SP) firmware update failed. 2. SP firmware update failed after it has been scheduled. 3. Post-update checks have failed.

Corrective Action

1. Perform a manual SP firmware update. 2. If the failures persist, contact NetApp technical support.

Syslog Message

SP update error: %s.

Parameters

reason (STRING): SP update error: %s.

sp.snmp events

sp.snmp.traps.off

Severity

INFORMATIONAL

Description

This message occurs each time a system boots, if the advanced privilege level in Data ONTAP® was used to disable the SNMP Trap feature of the Service Processor (SP). This message also occurs when the SNMP Trap capability is disabled and a user invokes a Data ONTAP command to use the SP to send an SNMP trap.

Corrective Action

SP SNMP Trap support is currently disabled. To enable this feature, set the 'sp.snmp.traps' option to On.

Syslog Message

SP's SNMP Trap support is currently disabled. Set option 'sp.snmp.traps' to 'On' to enable this feature.

Parameters

(None).

sp.ssh events

sp.ssh.access.resetup

Severity

ERROR

Description

This message occurs when the SSH access list of the service processor needs to be reconfigured.

Corrective Action

Use the "system service-processor ssh add-allowed-addresses" command to reconfigure the service processor SSH access list.

Syslog Message

Service Processor SSH access list needs to be reconfigured.

Parameters

(None).

sp.upd events

sp.upd.bad.fw.package

Severity

ERROR

Description

This message occurs when the Service Processor (SP) daemon cannot extract the SP firmware version from the metadata file. Either the file cannot be opened, or the number cannot be found within the file.

Corrective Action

Use the "system node image package delete" command to remove the corrupted package. If failures persist, contact NetApp technical support.

Syslog Message

Service Processor daemon failed to read metadata from the image package.

Parameters

Package_Name (STRING): Name of the SP firmware package being processed.

sp.upd.fw.depot.full

Severity

ERROR

Description

This message occurs when a user downloads more than the supported number of Service Processor (SP) firmware packages to the local node.

Corrective Action

Use the "system node image package delete" command to remove older packages. If failures persist, contact NetApp technical support.

Syslog Message

Repository for SP image is full.

Parameters

available_sp_pkg_count (INT): Number of SP firmware packages existing in the local node.
max_num_of_sp_pkgs (INT): Maximum number of supported SP packages in the local node.

sp.upd.unzip.event

Severity

ERROR

Description

This message occurs when the Service Processor (SP) daemon cannot expand the compressed SP firmware packages for the local node. The expected package could either not be found, or it could not be expanded.

Corrective Action

Use the "system node image package delete" command to remove the corrupted package. If failures persist, contact NetApp technical support.

Syslog Message

Service Processor failed to decompress the image package.

Parameters

package_name (STRING): SP firmware package name.
sp_fw_update_type (STRING): Type of SP firmware update being performed when the error was encountered.

sp.userlist events

sp.userlist.update.failed

Severity

ERROR

Description

This message occurs when there is an error updating user information for the Service Processor (SP). When user information is updated on Data ONTAP®, the SP is also updated with the new changes. This enables users to log in to the SP. User information update for the SP might have failed due to a communication error with the SP or the SP might not be operational.

Corrective Action

1. Run the 'system service-processor show' command at the Data ONTAP prompt to check whether the SP is operational. 2. If the SP is operational and this message persists, run the 'system service-processor reboot-sp' command at the Data ONTAP prompt to reboot the SP. 3. Retry the operation that caused the error message. 4. If this message persists after the SP has been rebooted, contact NetApp technical support.

Syslog Message

Error updating SP user information, %s.

Parameters

reason (STRING): Reason for the failure.

sp.wdog events

sp.wdog.set.fail

Severity

ERROR

Description

This message occurs when ONTAP® software fails to disable or enable the service-processor' (SP or BMC) watchdog timer. This might occur due to an intermittent SP or BMC firmware failure.

Corrective Action

If the system continues to run normally, you can ignore this message. If a system disruption occurs after this failure, reboot the SP or BMC or power-cycle the system before starting ONTAP or performing a giveback. If system disruptions continue to occur, contact NetApp technical support for assistance.

Syslog Message

Unable to %s service-processor's watchdog timer. Error code: 0x%x.

Parameters

op (STRING): Whether the failure was to enable or disable the timer.
errcode (INT): Error code for debugging.

space events

space.ratchet events

space.ratchet.failure

Severity

ERROR

Description

This event is generated if the space ratchet catches a space-check error.

Corrective Action

(None).

Syslog Message

%s %s %s %s %s %s %s %s %s %s %s

Parameters

f2 (STRING): Third frame of backtrace.
f3 (STRING): Fourth frame of backtrace.
f4 (STRING): Fifth frame of backtrace.
f5 (STRING): Sixth frame of backtrace.
f6 (STRING): Seventh frame of backtrace.
f7 (STRING): Eighth frame of backtrace.
f8 (STRING): Ninth frame of backtrace.
f9 (STRING): Tenth frame of backtrace.
f10 (STRING): Eleventh frame of backtrace.
f11 (STRING): Twelfth frame of backtrace.
f12 (STRING): Thirteenth frame of backtrace.

space.ratchet.failure.detail

Severity

ERROR

Description

This event is generated if the space ratchet catches a space-check error.

Corrective Action

(None).

Syslog Message

%s %s

Parameters

description (STRING): Description of failure.
buffers (STRING): Details of buffers that were predirtied.

spider events

spider.message events

spider.message.fail

Severity

ERROR

Description

This message occurs when a directory traversal task cannot finish because of an unexpected error.

Corrective Action

Ensure all nodes in the cluster are online and healthy, and that all volumes needed for the directory traversal are online. Then retry the operation.

Syslog Message

Volume %llu failed to perform directory task %s because of %s.

Parameters

volume_dsid (LONGINT): DSID of the volume that encountered the error.
task (STRING): Description of the task that could not be performed.
error (STRING): Description of the error that occurred.

splitter events

splitter.owm events

splitter.owm.recycle.start

Severity

NOTICE

Description

This message occurs when ovelapping write manager recycling is activated as the allocation exceeds the threshold. This event is dependent on workload and resource mangagement. It is resolved automatically internally.

Corrective Action

(None).

Syslog Message

Overlapping write manager recycling is activated as the allocation exceeds the threshold for relationship with UUID %s.

Parameters

relationship_id (STRING): SnapMirror relationship universal unique identifier (UUID).

splog events

splog.failed events

splog.failed.to.transfer.log

Severity

NOTICE

Description

This message occurs when the system fails to transfer the SP log file from the remote Service Processor (SP). This prevents abnormal status of the system from being diagnosed by using the SP log files.

Corrective Action

1. Check whether you can transfer SP log files from the remote SP manually. From the clustershell prompt: a. Enter the 'system node autosupport invoke-splog -remote-node "nodename"' command. b. Check the output message of the command to determine whether the command succeeded. 2. If you cannot tranfer SP log files from the remote SP manually, then restart the SP. From the clustershell prompt, run the 'set diag' and 'system node run-service-processor -node "down_node_name"' commands to log in to the remote SP. From the SP prompt, run the 'sp reboot' command. Example: splog-cmode::> set diag splog-cmode::*> system node run-service-processor -node splog-cmode-01 SP splog-cmode> sp reboot 3. After the SP finishes rebooting, if you still cannot transfer SP log files from the remote SP manually, then contact NetApp technical support for further assistance.

Syslog Message

Failed to transfer log from Service Processor (SP) on the remote node (%s) because of %s.

Parameters

node_name (STRING): Name of the remote node that is down and whose SP the log file cannot be transferred from.
reason (STRING): Reason for the warning.

splog.running events

splog.running.normally

Severity

INFORMATIONAL

Description

This message occurs when the Data ONTAP® process (splogd) that monitors the Service Processor (SP) for available SP logs starts successfully or when it returns to normal operation from degraded mode.

Corrective Action

(None).

Syslog Message

Process splogd is operating normally.

Parameters

(None).

splog.sp events

splog.sp.not.accessible

Severity

ERROR

Description

This message occurs when the local or remote node Service Processor (SP) cannot be accessed. This prevents the SP log collection job from communicating with the SP and transferring SP log files when new log files are available. SP log files are usually used for diagnosing abnormal status of the system, for example, abnormal shutdown.

Corrective Action

1. Check whether the SP is pingable by using the 'ping sp-ip-address' command at the clustershell prompt. 2. If the remote node SP is not pingable: a) Check whether the network cable is connected with the remote SP. b) If the remote node network cable is connected, check whether the IP address of the remote SP and the e0M port are in the same subnet. From the clustershell prompt, run the 'set diag' and 'system node run-service-processor -node node_name' commands to log in to the remote SP. From the SP prompt, run the 'sp status' command. From the clustershell prompt, run the 'network interface show' command to get e0M port details. c) If the IP address of the remote down node SP and the e0M port are in the same subnet and the remote SP is not pingable, then restart the SP. From the clustershell prompt, run the 'set diag' and 'system node run-service-processor -node node_name' commands to log in to the remote SP. From the SP prompt, run the 'sp reboot' command. 3. If the local node SP is not pingable: a) Check whether the IP address of the local SP and the e0M port are in the same subnet. From the clustershell prompt, press Ctrl-g to log in to the local SP. From the SP prompt, run the 'sp status' command. From the clustershell prompt, run the 'network interface show' command to get e0M port details. b) If the address of local node SP and the e0M port are in the same subnet and the SP is not pingable, then restart the SP. From the clustershell prompt, run the 'system service-processor reboot-sp -image primary' command. 4. After the SP finishes rebooting, if you still cannot ping the SP, then contact NetApp technical support for further assistance.

Syslog Message

The SP on the remote node (%s) is not accessible because of %s.

Parameters

node_name (STRING): Name of the node whose SP is not accessible.
reason (STRING): Reason for the warning.

splog.sp.not.configured

Severity

ERROR

Description

This message occurs when the IP address of the Service Processor (SP) is not configured properly. This prevents the SP log collection job from communicating with the SP and transferring SP log files when new log files are available. SP log files are usually used for diagnosing abnormal status of the system, for example, abnormal shutdown.

Corrective Action

1. Check the IP address of the SP. Remote node SP case: From the clustershell prompt, run the 'set diag' and 'system node run-service-processor -node node_name' commands to log in to the remote SP. From the SP prompt, run the 'sp status' command. Local node SP case: From the clustershell prompt, press 'Ctrl-g' and log into SP. From the SP prompt, run the 'sp status' command. 2. If there is no IP address for the SP, or if the IP address is invalid, then restart the node. The IP address of the SP will be configured by the host software. 3. If there is still no IP address for the SP after step 2, then contact NetApp technical support for further assistance.

Syslog Message

The SP on the node (%s) is not configured properly.

Parameters

node_name (STRING): Name of the node whose SP has its IP address configured incorrectly.

splog.unsupported events

splog.unsupported

Severity

INFORMATIONAL

Description

This message occurs when the current firmware of the Service Processor (SP) does not support the log collection function.

Corrective Action

Check the firmware version from the SP CLI using the 'version' command and compare it to the most current supported version for your storage system. If necessary, download and update the SP firmware to the latest supported version.

Syslog Message

The firmware on the SP does not support the log collection function.

Parameters

(None).

splog.warnings events

splog.warnings

Severity

ERROR

Description

This message occurs when the ONTAP® splogd process has been unable to retrieve a log from the Service Processor (SP) or baseboard management controller (BMC) for at least 24 hours.

Corrective Action

1. Use the "system service-processor show -node <node-name>" command to query the status of the SP

or BMC. Contact NetApp technical support for further assistance if the SP or BMC is not operational. 2. If the status of the SP or BMC is "online," then attempt to restart log monitoring by using the "system node autosupport invoke-splog -remote-node <node-name>" command. Verify from the command output that the logs were transferred successfully. (This command might require up to three attempts.) 3. If every attempt has failed, then restart the SP or BMC with the "system service-processor reboot-sp -node <node-name>" command. 4. After the SP or BMC has finished rebooting, repeat Step 2. 5. If the SP or BMC is still not transferring logs properly, run the "sp status -d" command from the SP CLI prompt or the "bmc status -d" command from the BMC CLI prompt, and include the resulting output when contacting NetApp technical support for further assistance.

Syslog Message

Could not retrieve logs from the %s for 24 hours: %s

Parameters

sp_type (STRING): SP type
reason (STRING): Reason for the warning.

spm events

spm.avs events

spm.avs.process.exit

Severity

ERROR

Description

This message occurs when the antivirus service stops running due to repeated failures. This can be the result of a bad or corrupted update in the scan engine library or virus definition files, or due to an internal failure. The failure of this subsystem can affect client access if mandatory scanning is enabled. It could also result in files not being scanned.

Corrective Action

Disable and then reenable the antivirus engine. If the issue persists, contact NetApp technical support.

Syslog Message

Antivirus server with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.bgpd events

spm.bgpd.process.exit

Severity

NOTICE

Description

This message occurs when the Border Gateway Protocol daemon (bgpd) involuntarily terminates. This daemon is responsible for communicating route information between a storage system and gateway for the virtual IP (VIP) feature. This failure will be automatically addressed by spmctl restarting bgpd. However, if bgpd fails to restart for any reason, the VIP feature will not function correctly.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport® message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Border Gateway Protocol daemon (bgpd) with ID %d exited as a result of signal: %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Cause of the process exit.

spm.coresegd events

spm.coresegd.process.exit

Severity

ALERT

Description

This message occurs when the core segment server (coresegd) involuntarily terminates. The termination of this server impacts all core segmenting services provided by the node.

Corrective Action

The system attempts to recover by restarting the node connectivity "process server". If the process does not restart within the threshold number of retries, then an AutoSupport(tm) message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

The core segment server (coresegd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process terminated.

spm.cphmd events

spm.cphmd.process.exit

Severity

ALERT

Description

This message occurs when the Chassis Health Monitor process (cphmd) involuntarily terminates. The termination of this process can affect monitoring of the subsystems of CPHM .

Corrective Action

The system attempts to recover by restarting the chassis HM process. server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

Controller Health Monitor process (cphmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.crs events

spm.crs.process.exit

Severity

ALERT

Description

This message occurs when the configuration replication server (crs) involuntarily terminates.

Corrective Action

The system attempts to recover by restarting the configuration replication process server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

The configuration replication server (crs) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.cshmd events

spm.cshmd.process.exit

Severity

ALERT

Description

This message occurs when the Cluster Switch Health Monitor process (cshmd) involuntarily terminates. The termination of this process can affect monitoring of the subsystems of CSHM .

Corrective Action

The system attempts to recover by restarting the cluster switch HM process. server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

Cluster Switch Health Monitor process (cshmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.enclmgmtd events

spm.enclmgmtd.process.exit

Severity

NOTICE

Description

This message occurs when the Enclosure Management Daemon (enclmgmtd) involuntarily terminates. This daemon is responsible for enclosure monitoring for this platform. This failure does not affect client access. However, enclosure monitoring might be in a degraded state if the service fails to restart.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport® message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Enclosure Management Daemon (enclmgmtd) with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.envmgr events

spm.envmgr.process.exit

Severity

ERROR

Description

This message occurs when the environmental monitoring daemon (env_mgr) involuntarily terminates. This daemon is responsible for environmental monitoring for this platform. This failure does not affect client access; however, environmental monitoring might be in a degraded state if the service fails to restart, which could result in an unpredicted shutdown if an adverse environmental condition or hardware failure occurs.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, call technical support.

Syslog Message

Environmental monitoring daemon (env_mgr) with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.fpolicy events

spm.fpolicy.process.exit

Severity

ALERT

Description

This message occurs when the fpolicy involuntarily terminates. This can be due to one or more causes and might be related to some recent or previous operations. This subsystem is responsible for sending notification to external fpolicy servers and failure of this subsystem can affect client access.

Corrective Action

While this problem persists, consider migrating the Logical Interfaces (LIFs) hosted on the current node to another node in the cluster and ensure that the auto-revert and DNS load-balancing features do not migrate the LIFs back to the current node. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Fpolicy Service Manager process with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.hashd events

spm.hashd.process.exit

Severity

ALERT

Description

This message occurs when the hashd server (hashd) involuntarily terminates.

Corrective Action

The system attempts to recover by restarting the hashd process server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

The hashd server (hashd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.httpd events

spm.httpd.process.exit

Severity

ALERT

Description

This message occurs when the web server (httpd) involuntarily terminates. The termination of this server will impact all HTTP/HTTPs services provided by the node.

Corrective Action

The system attempts to recover by restarting the node connectivity process. server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

The web server (httpd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.ktlsd events

spm.ktlsd.process.exit

Severity

ALERT

Description

This message occurs when the Kernel Transport Layer Security Daemon support process (ktlsd) involuntarily terminates. The termination of this process can affect monitoring of the subsystems of KTLS.

Corrective Action

The system attempts to recover by restarting the KTLS Daemon process. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

Kernel TLS support process (ktlsd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.mes events

spm.mes.process.exit

Severity

ERROR

Description

This message occurs when the SPD MES daemon (spd) involuntarily terminates. This daemon is responsible for updating DIMM SPDs with correctable error statistics. This failure doesn't affect client access.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, call technical support.

Syslog Message

SPD MES daemon (spd) with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.mgwd events

spm.mgwd.process.exit

Severity

EMERGENCY

Description

This message occurs when the Management Gateway (mgwd) subsystem involuntarily exits. The subsystem provides administration services to manage the cluster and current node. This failure can disrupt administrative tasks that are being performed on the current node. The system attempts to recover by restarting the subsystem. While this situation persists, if a Cluster Management Logical Interface (LIF) is hosted on the current node, migrate it to another node in the cluster using another node management LIF or console access to another node. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent.

Corrective Action

In the rare event that the Management Gateway (mgwd) subsystem has terminated unexpectedly, the automatic restart of the process will often stabilize the situation. While this situation persists, if a Cluster Management Logical Interface (LIF) is hosted on the current node, migrate it to another node in the cluster using another node management LIF or console access to another node. In some cases, there is a systemic issue that can be cleared up by rebooting the node when multiple restarts do not stabilize mgwd. This might be done automatically by the Node Watchdog service for persistent issues within a short window of time. In other cases, recent changes in logging, configuration or external management activities can be contributing factors to the unexpected terminations. Consider reverting one or more of these changes. If the issue persists, contact NetApp technical support.

Syslog Message

Management Gateway (mgwd) subsystem with ID %d exited as a result of signal %s. The subsystem will attempt to restart.

Parameters

> **id** (INT): Process identifier.
> **cause** (STRING): Plain text description of why the process exited.

spm.mntsvc events

spm.mntsvc.process.exit

Severity

> ALERT

Description

> This message occurs when the Node Root Mount Service (mntsvc) involuntarily terminates. The termination of this service affects all Remote Support Agent services provided by the node.

Corrective Action

> The system attempts to recover by restarting the process. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

> The Node Root Mount Service (mntsvc) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

> **id** (INT): Process identifier.
> **cause** (STRING): Plain text description of why the process exited.

spm.named events

spm.named.process.exit

Severity

> ERROR

Description

> This message occurs when the Domain Name Service (DNS) name resolution daemon 'named' involuntarily exits. This error can have one or more causes and might be related to some recent or previous operations. The failure of this daemon can affect DNS zone-based access. In particular, the cluster might no longer be able to resolve DNS zone names to IP addresses and clients that connect to the zone using zone names.

Corrective Action

> While this problem persists, ensure that any new mounts use an IP address instead of a zone name. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

> DNS name resolution daemon 'named' with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

    id (INT): Process identifier.
    cause (STRING): Plain text description of why the process exited.

spm.nchmd events

spm.nchmd.process.exit

Severity

    ALERT

Description

    This message occurs when the Node Connectivity Health Monitor process (nchmd) involuntarily terminates. The termination of this process can affect node connectivity monitoring for SAS subsystem.

Corrective Action

    The system attempts to recover by restarting the node connectivity process. server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

    Node Connectivity Health Monitor process (nchmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

    id (INT): Process identifier.
    cause (STRING): Plain text description of why the process exited.

spm.ndmpd events

spm.ndmpd.process.exit

Severity

    ALERT

Description

    This message occurs when the Network Data Management Protocol (NDMP) server (ndmpd) involuntarily terminates. The termination of this server can affect NDMP client access.

Corrective Action

    The system attempts to recover by restarting the NDMP server. If the NDMP server does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

    Network Data Management Protocol server (ndmpd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

    id (INT): Process identifier.

cause (STRING): Plain text description of why the process exited.

spm.nphmd events

spm.nphmd.process.exit

Severity

ALERT

Description

This message occurs when the Controller Health Monitor process (nphmd) involuntarily terminates. The termination of this process can affect monitoring of the subsystems of NPHM .

Corrective Action

The system attempts to recover by restarting the controller HM process. server. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

Controller Health Monitor process (nphmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.ntpd events

spm.ntpd.process.exit

Severity

ERROR

Description

This message occurs when the Network Time Protocol Daemon process (ntpd) involuntarily terminates. The termination of this process can affect synchronization of system time with network time servers.

Corrective Action

The system attempts to recover by restarting the ntpd process. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

The ntpd with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Reason the process exited.

spm.perfstatd events

spm.perfstatd.process.exit

Severity

ALERT

Description

This message occurs when the perfstat daemon (perfstatd) involuntarily terminates.

Corrective Action

The system attempts to recover by restarting the perfstat daemon. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

The perfstat daemon(perfstatd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.pipd events

spm.pipd.process.exit

Deprecated

Deprecated as of Data ONTAP 9.7 because the pipd process no longer exists.

Severity

ALERT

Description

This message occurs when the post-ingest processing daemon (pipd) involuntarily terminates. The termination of this service prevents data policies and constituent balancing from being applied to Infinite Volume data owned by the node in question.

Corrective Action

The system attempts to recover by restarting the pipd. If the process does not restart within the threshold number of retries, then an AutoSupport(tm) message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

The pipd with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.schmd events

spm.schmd.process.exit

Severity

ALERT

Description

This message occurs when the System Connectivity Health Monitor process (schmd) involuntarily terminates. The termination of this process can affect system connectivity monitoring for HA pair in SAS subsystem.

Corrective Action

The system attempts to recover by restarting the system connectivity process. If the process does not restart within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact technical support.

Syslog Message

System Connectivity Health Monitor process (schmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.secd events

spm.secd.process.exit

Severity

EMERGENCY

Description

This message occurs when the Security daemon (secd) involuntarily terminates. This can be due to one or more causes and might be related to some recent or previous operations. This subsystem is responsible for client authentication and failure of this subsystem can affect client access.

Corrective Action

While this problem persists, consider migrating the Logical Interfaces (LIFs) hosted on the current node to another node in the cluster and ensure that the auto-revert and DNS load-balancing features do not migrate the LIFs back to the current node. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Security daemon with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.servprocd events

spm.servprocd.process.exit

Severity

ALERT

Description

This message occurs when the Service processor daemon process (servprocd) involuntarily terminates.

Corrective Action

The system attempts to recover by restarting the web server. If the server does not restart within the threshold number of retries, then an AutoSupport(tm) message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Service processor daemon (servprocd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.shmd events

spm.shmd.process.exit

Severity

ALERT

Description

This message occurs when the System Health Monitor process (shmd) involuntarily terminates. The termination of this process can affect the system health management and diagnosis feature.

Corrective Action

The system attempts to recover by restarting the shmd process. If the server does not restart within the threshold number of retries, then an AutoSupport(tm) message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

System Health Monitor process (shmd) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.timestate events

spm.timeState.process.exit

Deprecated

This event is removed since time_state server was removed in 8.3.

Severity

ERROR

Description

This message occurs when the subsystem managing timekeeping parameters (time_state) stops running. The failure of this subsystem can cause Network Time Protocol (NTP) settings and the time zone to be inconsistent among subsystems. This might also have an effect on time displayed in log messages.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Subsystem managing timekeeping parameters (time_state) with ID %d exited as a result of signal %s. The subsystem will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process stopped running.

spm.ucoreman events

spm.ucoreman.process.exit

Severity

NOTICE

Description

This message occurs when the Usercore Manager (ucoreman) daemon involuntarily terminates. This daemon is responsible for generating a crash report when an application crashes and dumps core. The crash report helps technical support to diagnose issues with the application. This failure does not affect client access.

Corrective Action

The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, call technical support.

Syslog Message

Usercore Manager (ucoreman) with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.upgrademgr events

spm.upgrademgr.process.exit

Severity

ERROR

Description

This message occurs when the upgrade manager server (upgrademgr) involuntarily terminates.

Corrective Action

The system attempts to recover by restarting the upgrademgr process server. If the process does not restart within the threshold number of retries, then an AutoSupport® message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

The upgrade manager server (upgrademgr) with ID %d exited as a result of %s. This server will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.vifmgr events

spm.vifmgr.process.exit

Severity

EMERGENCY

Description

This message occurs when the Logical Interface Manager (VIFMgr) subsystem aborts. This error can have one or more causes and might be related to recent or previous operations. The failure of this subsystem can result in logical interfaces (LIFs) on the current node migrating to another node within the same cluster.

Corrective Action

Ensure that the LIFs on the current node are hosted on another node in the cluster; if they are not, migrate them to another node. While this problem persists, you should also ensure that the auto-revert and DNS load-balancing features do not migrate the LIFs back to the current node. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Logical Interface Manager(VifMgr) with ID %d aborted as a result of signal %s. The subsystem will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process aborted.

spm.vldb events

spm.vldb.process.exit

Severity

EMERGENCY

Description

This message occurs when Volume Location Database (VLDB) subsystem stops running. This can be due to one or more causes and might be related to some recent or previous operations. The failure of this subsystem can affect client access.

Corrective Action

Ensure that none of the volume/aggregate operations are performed on the current node. While this problem persists, you might want to migrate the Logical Interfaces (LIFs) to another node in the cluster and ensure that auto-revert and DNS load-balancing features do not migrate the LIFs back to the current node. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

Volume Location Database(VLDB) subsystem with ID %d exited as a result of signal %s. The subsystem will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.vserverdr events

spm.vserverdr.process.exit

Severity

ALERT

Description

This message occurs when the Vserver DR process involuntarily terminates. This might cause interruptions in the automatic or scheduled configuration backup of the Vserver's data and configuration.

Corrective Action

The system attempts to recover by restarting the Vserver DR process. Use the "debug process show -process-name vserverdr" command in the diagnostic privilege level to check whether the Vserver DR process has successfully restarted. If the process does not restart within the threshold number of retries, an AutoSupport(tm) message will be sent. If your system is not configured to send AutoSupport messages and the process has not automatically recovered, contact NetApp technical support.

Syslog Message

The Vserver DR process with ID %d exited as a result of %s. The system will attempt to restart it.

Parameters

id (INT): Process identifier.
cause (STRING): Plain text description of why the process exited.

spm.ypbind events

spm.ypbind.process.exit

Severity

ALERT

Description

This message occurs when the NIS client binding daemon 'ypbind' involuntarily exits. This error can have one or more causes and might be related to some recent or previous operations. The termination of this daemon will affect all NIS-based services provided by the controller. In particular, it will no longer be possible to use NIS as a name service source for name lookups.

Corrective Action

While this problem persists, unconfigure NIS as a name service source in the name service switch database. For passwd, group, or netgroup lookups, use an alternative name service source, such as LDAP or files. The system attempts to recover by restarting the subsystem. If the subsystem does not recover within the threshold number of retries, then an AutoSupport(tm) message is sent. If your system is not configured to send AutoSupport messages and the issue persists, contact NetApp technical support.

Syslog Message

NIS client binding daemon 'ypbind' with ID %d exited as a result of signal %s. The service will attempt to restart.

Parameters

id (INT): Process identifier.
cause (STRING): Reason the process exited.

spmgmt events

spmgmt.driver events

spmgmt.driver.hourly.stats

Severity

ERROR

Description

This message occurs when the system encounters an error while trying to get hourly statistics from the Service Processor (SP). The error could be due a communication error with the SP or the SP might not be operational.

Corrective Action

1. Run the 'system service-processor show' command at the Data ONTAP® prompt to check whether the SP is online. 2. If the SP is online and this message persists, run the 'system service-processor reboot-sp' command at the Data ONTAP prompt to reboot the SP.

Syslog Message

The software driver for the Service Processor (SP) detected a problem: %s.

Parameters

reason (STRING): Reason for this failure.

spmgmt.driver.mailhost

Severity

ERROR

Description

This message occurs when the Service Processor (SP) setup cannot connect to the mailhost specified in Data ONTAP®.

Corrective Action

1. Check the system AutoSupport configuration to verify that a valid mailhost is configured in Data ONTAP. 2. Ensure that Data ONTAP can successfully connect to the specified mailhost by running a test command to invoke AutoSupport.

Syslog Message

SP setup could not access the mailhost specified in Data ONTAP.

Parameters

(None).

spmgmt.driver.network.failure

Severity

ERROR

Description

This message occurs when the system encounters a failure during network configuration of the Service Processor (SP). The system cannot assign the SP a DHCP (Dynamic Host Configuration Protocol) or fixed IP address.

Corrective Action

1. Check whether the network cable is correctly plugged into the SP network port. 2. Check the link status LED on the SP. 3. Verify that the network that the SP is connected to has autonegotiation enabled.

Syslog Message

The network configuration of the Service Processor (SP) failed due to cable or network errors.

Parameters

(None).

spmgmt.driver.timeout

Severity

ERROR

Description

This message occurs when there is a failure during communication with the Service Processor (SP) firmware. The failure could be due to a communication error with the SP or the SP might not be operational.

Corrective Action

1. Issue the 'system service-processor show' command at the Data ONTAP® prompt to check whether the SP is online. 2. If the SP is operational and this message persists, run the 'system service-processor reboot-sp' command at the Data ONTAP prompt to reboot the SP. After the reboot, this message should no longer occur. If the message occurs again, contact NetApp technical support and explain that you already performed the preceding steps.

Syslog Message

The software driver for the Service Processor (SP) detected a problem: %s.

Parameters

reason (STRING): Reason for the failure.

sshd events

sshd.auth events

sshd.auth.loginDenied

Severity

NOTICE

Description

This event is issued when sshd refuses a login attempt due to authentication failure.

Corrective Action

Use a valid username/password combination to login.

Syslog Message

(None).

Parameters

message (STRING): Details about the failed login attempt.

sshd.logingracetime events

sshd.loginGraceTime.expired

Severity

ERROR

Description

This message occurs when a user tries to establish a Secure Shell (SSH) connection to a storage system and does not provide the password within the allotted timeout period. Many such connection attempts could potentially disallow other users from logging in to the storage system, causing a Denial of Service (DOS) attack.

Corrective Action

If the remote host is retrying the SSH connection repeatedly, block the remote host by adding its IP address to the deny list using the "firewall policy" command.

Syslog Message

Timeout before password authentication for remote host %s.

Parameters

ipaddress (STRING): IP address of the remote host that was trying to establish an SSH connection.

stackmon events

stackmon.stack events

stackmon.stack.id.conflict

Severity

ERROR

Description

This message occurs when the system cannot determine the stack ID for a disk shelf. The system has exceeded the maximum number of times it can change the stack ID of the shelf. The cause of this issue is a misconfiguration in the system.

Corrective Action

Run the 'system health alert show' command and resolve all of the issues reported by following the corrective actions provided.

Syslog Message

Stack ID of the Shelf %d (S/N %s) on channel %s cannot be agreed on by all the nodes in the cluster.

Parameters

shelfIdent (INT): ID number displayed on the disk shelf OPS panel.
serialNumber (STRING): Serial number of disk shelf.
channelName (STRING): Channel connected to the disk shelf.

storage events

storage.cmd events

storage.cmd.balanceRequest

Severity

INFORMATIONAL

Description

Indicates a user request to balance I/O across initiator ports has been issued.

Corrective Action

(None).

Syslog Message

Storage related I/O has been balanced across available initiator ports.

Parameters

(None).

storage.cmd.logPortIO

Severity

INFORMATIONAL

Description

Logs the mix of I/O bound to a specific initiator port prior to balancing. Issued for all initiator ports when a user requests a balancing of I/O.

Corrective Action

(None).

Syslog Message

Initiator Port %s had %d percent of all storage bound I/O traffic routed through it.

Parameters

portName (STRING): The name of the initiator port
ioPct (INT): The percentage of overall backend I/O routed through this port

storencr events

storencr.disk events

storencr.disk.opDone

Severity

INFORMATIONAL

Description

This message occurs when a Storage Encryption disk command operation that modifies encrypting drive parameters is completed successfully.

Corrective Action

(None).

Syslog Message

Storage Encryption disk %s operation was completed successfully.

Parameters

operation (STRING): Name of the operation.

storvsc events

storvsc.srb events

storvsc.srb.status

Severity

ALERT

Description

This message occurs when ONTAP® software receives an unexpected hypervisor I/O adapter driver response code to an I/O request. The I/O request is retried.

Corrective Action

If the condition persists, contact the hypervisor provider for the corrective action.

Syslog Message

%s. The I/O request will be retried.

Parameters

Descriptor (STRING): Hypervisor's I/O adapter driver received response code.

suspend events

suspend.zapi events

suspend.zapi

Severity

ALERT

Description

This message occurs when ONTAPI (ZAPI) has been suspended due to a lack of use.

Corrective Action

Ensure that all ONTAP data storage management functions using ONTAPI (ZAPI) have transitioned to ONTAP REST API. To unsuspend ONTAPI (ZAPI), run the "system services web ontapi modify -suspended false" command.

Syslog Message

ONTAPI (ZAPI) was suspended on "%s" due to a lack of use.

Parameters

date (STRING): Date ONTAPI (ZAPI) was suspended.

sv events

sv.vfiler events

SV.vfiler.config.move.error

Severity

ERROR

Description

This message occurs when movement of SnapVault® configuration from 'from' vFiler to 'to' vFiler fails. Subsequent SnapVault transfer on the vFiler might fail.

Corrective Action

Move the volume back to 'from' vFiler and then again perform a vFiler move from 'from' vFiler to 'to' vFiler. Please use 'vfiler move' command to move the volume between the vfilers.

Syslog Message

Movement of SnapVault configuration failed while moving volumes between vFiler %s to vFiler %s. Move the volume back to %s vFiler and perform the vFiler move operation again.

Parameters

from_vfiler1 (STRING): vFiler(tm) from which resources are being moved.
to_vfiler (STRING): vFiler to which resources are being moved.
from_vfiler2 (STRING): vFiler to which resources are being moved.

sv.vol events

SV.vol.snapshot.rename.error

Severity

ERROR

Description

This message occurs when the renaming operation of SnapVault® snapshots belonging to a certain volume fails, even though the "vFiler rename" or "vFiler move" operation was successful. The problem might be that the volume was offline during the "vFiler rename" or "vFiler move" operation, and it might cause SnapVault to have an extra snapshot on the destination. To avoid this scenario, volumes need to be online during a "vFiler rename" or "vFiler move".

Corrective Action

If necessary, delete the extra snapshot manually after the next SnapVault update.

Syslog Message

Rename of SnapVault snapshots for volume %s failed. This might cause SnapVault to have an extra snapshot on destination. If necessary, delete the extra snapshot manually after the next SnapVault update.

Parameters

vol_name (STRING): Volume whose snapshots created by SnapVault® could not be renamed.

sync events

sync.snapmirror events

sync.snapmirror.arl.veto

Severity

ALERT

Description

This message occurs when a storage failover (SFO) operation is vetoed because the aggregate is hosting volumes that are in a SnapMirror® Synchronous relationship with StrictSync policy.

Corrective Action

Either convert all SnapMirror Synchronous relationships with StrictSync Policy to Sync Policy for the volumes in the aggregate and then retry the operation, or retry the operation with the "override-vetoes true" parameter. Note: Using this option can cause an I/O disruption.

Syslog Message

SnapMirror vetoed storage failover operation because aggregate "%s" is hosting volumes that are in a SnapMirror Synchronous relationship with StrictSync policy.

Parameters

aggrname (STRING): Name of the aggregate.

sync.snapmirror.oos.frequent

Severity

ERROR

Description

This message occurs when a SnapMirror® Sync relationship frequently changes status from "in-sync" to "out-of-sync". This behaviour impacts data protection. I/O restrictions are imposed on the source volume based on the mode of replication. For relationships with policy type "strict-sync-mirror", both client read AND write access are disallowed.

Corrective Action

Check network connection between the source and destination volumes. Monitor the SnapMirror® Sync relationship status by using the "snapmirror show" command and observe field "last-transfer-error" to identify the reasons for frequent status change of the SnapMirror® Sync relationship to "out-of-sync".

Syslog Message

Source volume "%s" and destination volume "%s" with relationship UUID "%s" is frequently undergoing change in status from "in-sync" to "out-of-sync".

Parameters

srcpath (STRING): Path name of the source volume of the SnapMirror relationship.
dstpath (STRING): Path name of the destination volume of the SnapMirror relationship.
relationship_id (STRING): Relationship UUID.

sysconfig events

sysconfig.sysconfigtab events

sysconfig.sysconfigtab.openFailed

Severity

    NOTICE

Description

    This event is issued when the sysconfigtab file cannot be opened.

Corrective Action

    (None).

Syslog Message

    sysconfig: %s

Parameters

    reason (STRING): Reason why it can't be opened.

sysmgr events

sysmgr.ecv events

sysmgr.ecv.fetch

Severity

ERROR

Description

This message occurs when acquiring the desired Effective Cluster Version (ECV) of System Manager was not accomplished within the time limit. This node will provide the last version of System Manager instead of the desired ECV. Any operations being blocked are unblocked, such as storage giveback and cluster management logical interface (LIF) migration.

Corrective Action

Use the diagnostic level "system manager version show" command to see the status of the node. If this behavior persists, contact NetApp technical support.

Syslog Message

ECV version %s of System Manager was not acquired within %d seconds.

Parameters

ecv (STRING): Current ECV determined by the capability management (CAPM) system.
timeout (INT): Timeout in seconds.

sysmgr.gb events

sysmgr.gb.ecv

Severity

NOTICE

Description

This message occurs when acquiring the desired Effective Cluster Version (ECV) of System Manager was not accomplished within the time limit during the first storage giveback phase. This node will provide the last version of System Manager instead of the desired ECV. This node might acquire the desired version later.

Corrective Action

Use the diagnostic level "system manager version show" command to see the status of the node. If this behavior persists, contact NetApp technical support.

Syslog Message

ECV version of System Manager was not acquired within %d seconds during the first phase of storage giveback.

Parameters

timeout (INT): Timeout in seconds.

sysmgr.upload events

sysmgr.upload.bad.method

Severity

ERROR

Description

This message occurs when an attempt to upload a file through the System Manager web service fails because the HTTP method is not POST.

Corrective Action

Retry the upload using the System Manager web interface.

Syslog Message

Failed to upload a file because the HTTP method "%s" is not allowed. The method must be POST.

Parameters

method (STRING): HTTP method.

sysmgr.upload.bad.type

Severity

ERROR

Description

This message occurs when a file upload through the System Manager web service fails because the file name has an unsupported extension.

Corrective Action

Upload a file with one of the allowed file name extensions using the System Manager web interface.

Syslog Message

Failed to upload file "%s" because the extension must be one of: %s.

Parameters

file (STRING): File name.
allowed_types (STRING): Allowed extensions for the file name.

sysmgr.upload.exists

Severity

NOTICE

Description

This message occurs when a file upload through the System Manager web service fails because the file already exists. System Manager automatically deletes the existing file and retries the upload.

Corrective Action

(None).

Syslog Message

Failed to upload file "%s" because it already exists.

Parameters

file (STRING): File name.

sysmgr.upload.internal

Severity

ERROR

Description

This message occurs when a file upload through the System Manager web service fails because of an internal error.

Corrective Action

Retry the upload using the System Manager web interface.

Syslog Message

Failed to upload file "%s" because of an internal error.

Parameters

file (STRING): File name.

sysmgr.upload.no.file

Severity

ERROR

Description

This message occurs when an attempt to upload a file through the System Manager web service fails because the file is not received. This might happen if the file is larger than the limit or space is consumed by other uploads.

Corrective Action

If the file is larger than the maximum allowed size, then it cannot be uploaded. If other uploads are in progress, allow time for those uploads to finish, and then try again. Otherwise, contact NetApp technical support.

Syslog Message

Failed to upload file "%s" due to exceeding size limit %s or insufficient space.

Parameters

file (STRING): File name.
max_filesize (STRING): Maximum allowed size for the uploaded file.

sysmgr.upload.no.form

Severity

ERROR

Description

This message occurs when an attempt to upload a file through the System Manager web service fails because there is a problem with the request format. This might happen if the Content-Type HTTP header is not "multipart/form-data" or there is not a form field named "file" containing the file to upload.

Corrective Action

Retry the upload using the System Manager web interface.

Syslog Message

Failed to upload a file because a form field named "file" was not found in the HTTP request, or the Content-Type HTTP header is not "multipart/form-data".

Parameters

(None).

sysmgr.upload.success

Severity

NOTICE

Description

This message occurs when a file is successfully uploaded through the System Manager web service.

Corrective Action

(None).

Syslog Message

File "%s" has been uploaded.

Parameters

file (STRING): File name.

sysmgr.upload.unauthorized

Severity

ERROR

Description

This message occurs when an attempt to upload a file through the System Manager web service fails because the user is unauthorized. This could be due to a failure to authenticate the user, e.g., the password or user name was wrong, or if the user's role is not granted access to the System Manager web service.

Corrective Action

Verify that the user name and password used to log in in to System Manager are correct. Verify that the user exists in the "security login show" table with application "http" and authentication method "password". Verify that the user's role, as shown in "security login show", is granted access to the "sysmgr" web service in "vserver services web access show sysmgr".

Syslog Message

Failed to upload file "%s" because the user is unauthorized.

Parameters

    file (STRING): File name.

tape events

tape.cmd events

tape.cmd.chkCondErr

Severity

ERROR

Description

This message occurs when a Check Condition status from the tape drive reports an informational condition or status to the controller. The condition that generated this event is an error that occurred during execution of the command and was not cleared by retrying the request, if retries were attempted.

Corrective Action

This Check Condition case is an error that might be caused by an intermittent error in device hardware or a flaw in the tape media. Media errors might also suggest that the tape drive head should be cleaned following the manufacturer's directions. In cases of repeated events, evaluate the device for proper operation and possible repair or replacement. Consult vendor documentation for additional information.

Syslog Message

%s device %s: Check Condition: SCSI opcode %s (CDB %s): %s - %s (0x%x - 0x%x 0x%x 0x%x).

Parameters

deviceType (STRING): Type of device on which the condition occurred.
deviceName (STRING): Electrical path name of the device on which the command failed.
opcode (STRING): Definition of the SCSI opcode (command) that encountered the check condition.
cdb (STRING): Opcode byte of the command block that encountered the check condition.
sSenseKey (STRING): String containing a description of the sense key returned by the device for the failed command.
sSenseCode (STRING): String containing a description of the additional sense code and sense code qualifier key returned by the device for the failed command.
iSenseKey (INTHEX): Integer value of the sense key for the failed command.
iASC (INTHEX): Integer value of the sense code for the failed command.
iASCQ (INTHEX): Integer value of the sense code qualifier for the failed command.
iFRU (INTHEX): Integer value of the field-replaceable unit(FRU) for the failed command.

tape.cmd.chkCondNullSenseDbg

Severity

ERROR

Description

This message occurs when the command to the tape device fails with a status of Check Condition, but the adapter received no sense bytes containing details about the failure. Sense bytes typically accompany command failure reports, unless bus or loop stability problems, or target device or adapter errors have interfered with the sense byte transfer. This is a diagnostic message. See the "mt diag" command (from the nodeshell in clustered environments) for the control of tape diagnostic messages.

Corrective Action

Ensure that the cables are securely attached, and perform other maintenance typically required for SCSI or FC stability. If the error persists, contact NetApp technical support for assistance.

Syslog Message

%s device %s reports Check Condition status on command opcode 0x%x. No sense bytes accompany the status.

Parameters

deviceType (STRING): Device type.
deviceName (STRING): Electrical path name of the device on which the command failed.
opcode (INTHEX): Opcode of the failed SCSI command.

tape.cmd.cmdFail

Severity

ERROR

Description

This message occurs when a tape command fails with an error detected by the adapter. This is not an error reported by the tape drive. The adapter status values reported under this message indicate that the adapter suffered an internal error, or that the bus or loop is unstable, or that the adapter has no path to the requested device.

Corrective Action

Verify that the loop or bus cabling is correctly installed. If the error occurs only on this device and not on others on the same interface, ensure that the external and internal cabling, if any, of this device are securely connected. If the error occurs on more than one device, then a more general debug of the cabling infrastructure might be required.

Syslog Message

Tape device %s: command failed, ha_status 0x%x.

Parameters

deviceName (STRING): Electrical path name of the device on which the command failed.
adapterError (INTHEX): Internal adapter error that was detected.

tape.cmd.scsiErrNullSense

Severity

ERROR

Description

This message occurs when the device reports that the command failed, but the adapter received no sense bytes containing detail about the failure. Sense bytes typically accompany command failure reports, unless bus or loop stability problems, or target device or adapter errors have interfered with the sense byte transfer.

Corrective Action

Ensure that the cables are securely attached, and perform other maintenance typically required for SCSI or FC stability. If the error persists, contact NetApp technical support for assistance.

Syslog Message

%s device %s reports %s status on command opcode 0x%x. No sense bytes accompany the status.

Parameters

deviceType (STRING): Device type.
deviceName (STRING): Electrical path name of the device on which the command failed.
scsiStatus (STRING): Status returned by the device.
opcode (INTHEX): Opcode of the failed SCSI command.

tape.config events

tape.config.badKey

Severity

ERROR

Description

This message occurs when the tape configuration file has a format error in a required parameter or is missing a required parameter. The error prevents the file from being used to specify parameters for the tape drive. Data ONTAP® examines tape configuration files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image. This error can occur if a configuration file is altered, an action that is not recommended.

Corrective Action

Recover the original file from a backup file or Snapshot(tm) copy, if possible. A copy of the file might be available from NetApp Support, although not all tape configuration files are made available there.

Syslog Message

Required key (%s) is missing or badly formatted in tape configuration file %s.

Parameters

badKey (STRING): Required parameter.
configFile (STRING): Name of the file with the error.

tape.config.badOpt

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP® detects an incorrect format on an option key in a tape configuration file. Data ONTAP will use a default setting for this key. This message can occur if a configuration file is altered, an action that is not recommended. This condition does not prevent the use of the specified tape device. Data ONTAP examines tape configuration files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image.

Corrective Action

Recover the original file from a backup file or Snapshot(tm) copy, if possible. A copy of the file might be available from NetApp Support, although not all tape configuration files are made available there.

Syslog Message

Option key %s is absent or badly formatted in tape configuration file %s. Default %s will be used.

Parameters

badOptKey (STRING): Absent or badly formatted option keys.
configFile (STRING): Name of the file with the incorrect or absent option key.
defaultOpt (STRING): Default values used in place of the option keys.

tape.config.fmtChkFail

Severity

ERROR

Description

This message occurs when a tape configuration file has a format error in a parameter that prevents use of the tape drive that the file specifies. This error can occur if a configuration file is altered, an action that is not recommended. Additional messages detail the missing or badly formatted keys. Data ONTAP® examines tape configuration files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image.

Corrective Action

Recover the original file from a backup file or Snapshot(tm) copy, if possible. A copy of the file might be available from NetApp Support, although not all tape configuration files are made available there.

Syslog Message

Tape configuration file %s has missing or badly formatted required keys. Format check has failed.

Parameters

configFile (STRING): Name of the file with the error.

tape.config.fmtErrKey

Severity

ERROR

Description

This message occurs when the file has a parameter format error in a tape configuration file that prevents the file from being used to specify tape drive parameters. Data ONTAP® examines tape configuration files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image. This error can occur if a configuration file is altered, an action that is not recommended.

Corrective Action

Recover the original file from a backup file or Snapshot(tm) copy, if possible. A copy of the file might be available from NetApp Support, although not all tape configuration files are made available there.

Syslog Message

Tape configuration file %s has a format error in the information appended to key %s.

Parameters

configFile (STRING): Name of the file with the error.
line (STRING): Line containing the error.

tape.config.infoExist

Severity

ERROR

Description

This message occurs when the information in a tape configuration file specifies a tape drive that Data ONTAP® already has parameters for. This error can occur if duplicate or multiple files for the same device are in the /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory. Data ONTAP examines files in the storage controller's tape_config directory to dynamically qualify devices that are not part of the Data ONTAP image.

Corrective Action

Remove any duplicates. If the device appears in the output of the "storage show tape supported" (7-Mode or Cluster-Mode nodeshell) command without the notation "(Dynamically qualified)", then Data ONTAP contains this information internally, and the file should be removed from the directory. This file might have been left over from a previous Data ONTAP release that did not have internal information for the device.

Syslog Message

Tape device information already exists. Dynamic tape configuration file %s not used. Tape product ID already qualified.

Parameters

configFile (STRING): Name of the file with the extra or duplicate information.

tape.config.maxFilesExceeded

Severity

ERROR

Description

This message occurs when the maximum number of tape configuration files that Data ONTAP® will examine has been exceeded. Data ONTAP examines files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image. This error might be caused by the addition of tape configuration files retrieved from the NetApp Support site, or by user attempts to create configuration files.

Corrective Action

Remove any files that might be duplicates, and remove any user-created files.

Syslog Message

The maximum number of Dynamic Tape Qualification configuration files (%d) has been exceeded.

Parameters

maxFiles (INT): Maximum number of dynamic qualification files allowed.

tape.config.openFail

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot open a file in the tape configuration directory. Data ONTAP examines files in the storage controller's /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory to dynamically qualify devices that are not part of the Data ONTAP image.

Corrective Action

This error might be a temporary condition. If any files in the /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode) directory are opened by an editor or viewer, close them. Data ONTAP will try to open the file again for qualification when a tape operation is attempted.

Syslog Message

Failed to open tape configuration input file %s.

Parameters

configFile (STRING): File that could not be opened.

tape.device events

tape.device.adapterErr

Severity

ERROR

Description

This message occurs when an adapter error occurs that Data ONTAP® does not recognize.

Corrective Action

If the error persists, contact NetApp technical support for assistance if the error persists.

Syslog Message

Tape device %s: Unexpected adapter error 0x%x.

Parameters

deviceName (STRING): Electrical path name of the device on which the command failed.
adapterError (INT): Internal adapter error that was detected.

tape.device.cmdAbort

Severity

ERROR

Description

This message occurs when a tape command fails with an error detected by the adapter. This is not an error reported by the tape drive. The adapter status values reported under this message indicate that a timeout in the transport of the command has occurred, or that other devices on the bus or loop have induced an error in the communication with this device, which might not be at fault. These errors might be of a transient nature.

Corrective Action

Verify that the loop or bus cabling is correctly installed, and retry the operation. If the error occurs only on this device and not on others on the same interface, ensure that the external and internal cabling, if any, of

this device are securely connected. If this error occurs on more than one device, then a more general debug of the cabling infrastructure might be required. If errors of other types occur on other devices on the same bus or loop, attend to those first, because they could be the cause of this error.

Syslog Message

Tape device %s: command aborted by host, ha_status 0x%x.

Parameters

deviceName (STRING): Electrical path name of the device on which the command failed.
adapterError (INT): Internal adapter error that was detected.

tape.device.noCompress

Severity

ERROR

Description

This message occurs when the tape device does not support the compression mode that Data ONTAP® attempted to set it to. This error indicates a mismatch in expectations between Data ONTAP and the tape drive over whether compression is supported. This error can occur if the the tape drive is qualified with a tape configuration file in /etc/tape_config (7-Mode) or /mroot/etc/tape_config (Cluster-Mode), and the file has been modified from its released condition, an action that is not recommended.

Corrective Action

Verify whether the device documentation indicates that it supports compression. If support is indicated, then the device might need to be power-cycled to clear an abnormal condition, or it might need to be repaired. If Data ONTAP employs a tape configuration file to enable support of this drive and the file has been modified, the file should be returned to its original condition. Support using the configuration file is indicated if the device appears in the output of the "storage show tape supported" (7-Mode or Cluster-Mode nodeshell) command with the notation "(Dynamically Qualified)". Revert to a previous configuration file version, or retrieve a new version from NetApp Support, if one is available.

Syslog Message

Tape device %s does not support compression %s.

Parameters

devAddr (STRING): Device address.
modifier (STRING): The SCSI component that is not supported; the Mode Select Compression Page or compression capability represented in that page.

tape.device.notSupported

Severity

ERROR

Description

This message occurs when Data ONTAP® does not recognize this tape drive as a supported device.

Corrective Action

Go to support.netapp.com/NOW/download/tools/tape_config/index.shtml to determine whether NetApp has qualified this tape drive, and download the appropriate configuration file, if necessary. If this tape drive emulates a qualified tape drive, see na_cloned_tapes(5) for more information.

Syslog Message

Data ONTAP does not recognize this tape drive: %s: %.8s%.16s%.4s

Parameters

address (STRING): Address identifier of the tape device.
vendorID (STRING): Tape device vendor, as found in the SCSI Inquiry data field "VENDOR IDENTIFICATION".
productID (STRING): Product name, as found in the SCSI Inquiry data field "PRODUCT IDENTIFICATION".
revision (STRING): Product revision, as found in the SCSI Inquiry data field "PRODUCT REVISION LEVEL".

tape.device.selectTimeout

Severity

ERROR

Description

This message occurs when the adapter cannot select the tape drive. This can be caused by the failure of the device, or by unstable loop or bus conditions that corrupt the selection signals so that the device does not detect selection request, or the adapter does not recognize the device response. This is not an error reported by the tape drive. This error might be of a transient nature.

Corrective Action

Verify that the loop or bus cabling is correctly installed, and retry the operation. If this error occurs on more than one device, then a more general debug of the cabling infrastructure might be required. For SCSI devices, carefully examine the bus pins for damage, especially if cables have been moved since the last time this device functioned correctly. If the error persists, power-cycling the drive might clear a hang condition in the device.

Syslog Message

Tape %s: selection timeout, ha_status 0x%x.

Parameters

deviceName (STRING): Electrical path name of the device on which the command failed.
adapterError (INT): Internal adapter error that was detected.

tape.diagmsg events

tape.diagMsg

Severity

INFORMATIONAL

Description

This message occurs when there is a new state of the tape diagnostic message flag. Data ONTAP® is more or less verbose in reporting SCSI check conditions depending on the flag. Using a valid tape drive address [tape], diagnostic messages can be enabled using the "mt -f [tape] diag 1" (7-Mode or Cluster-Mode nodeshell) command. You can disable the extra message using the "mt -f [tape] diag 0" command. The default value is 0.

Corrective Action

There is no corrective action for this message. However, enabling diagnostic messages might cause other error messages to be generated that are usually suppressed by Data ONTAP, particularly reports of tape position. No corrective action is needed if the reports are normal. Normal reports include check conditions at the beginning or end of tape, and filemarks. It is important to understand the format of the tape data to determine whether the additional messages indicate an error.

Syslog Message

Tape driver diagnostic messages %s.

Parameters

diagState (STRING): New condition of "diag" message enable.

tapemc events

tapemc.alias events

tapemc.alias.addFail

Severity

ERROR

Description

This message occurs when the automatic addition of a tape or medium changer alias fails. Data ONTAP® might attempt to add aliases automatically at boot or when devices are added, if it determines that the devices have no existing aliases.

Corrective Action

Check the tape and medium changer aliases to ensure that they specify the desired devices. You can view, add, or delete aliases using the "storage alias/unalias" (7-Mode or Cluster-Mode nodeshell) commands.

Syslog Message

Unable to retrieve and add alias for %s device %s.

Parameters

deviceType (STRING): Type of device for which an alias addition failed.
deviceAddr (STRING): Address of the device for which an alias addition failed.

tapemc.alias.addOK

Severity

NOTICE

Description

This message occurs when a tape or medium changer alias is added successfully. Data ONTAP® might add aliases automatically at boot or when devices are added, if it determines that devices have no existing aliases.

Corrective Action

(None).

Syslog Message

Alias %s automatically added for %s device %s.

Parameters

alias (STRING): New alias of the device.
deviceType (STRING): Type of device.
deviceAddr (STRING): Address of the device.

tapemc.alias.max

Severity

ERROR

Description

This message occurs when Data ONTAP® automatically adds a tape or media changer alias, and the new number of aliases exceeds the maximum number of aliases allowed. Automatic alias addition can occur when new devices are discovered, or when device connections are changed.

Corrective Action

Delete any unused aliases with 'storage tape alias clear'.

Syslog Message

Could not add alias for %s device %s. The alias count exceeds the maximum of %d aliases.

Parameters

deviceType (STRING): Type of device.
deviceAddr (STRING): Address of the device.
max (INT): Maximum number of tape and media changer aliases allowed.

tapemc.alias.threshold

Severity

ERROR

Description

This message occurs when Data ONTAP® automatically adds a tape or media changer alias, and the new number of aliases exceeds an internal threshold. The alias is added, but additional aliases might not be added until other aliases are deleted. Automatic alias addition can occur when new devices are discovered, or when device connections are changed.

Corrective Action

Delete any unused aliases with 'storage tape alias clear'.

Syslog Message

Addition of alias %s for %s device %s totals %d aliases which exceeds threshold of %d tape/media changer aliases. The maximum number of aliases allowed is %d.

Parameters

alias (STRING): New alias of the device.
deviceType (STRING): Type of device.
deviceAddr (STRING): Address of the device.
count (INT): Current count of tape and media changer aliases.
threshold (INT): Internal threshold for number of tape and media changer aliases.
max (INT): Maximum number of tape and media changer aliases allowed.

tapemc.device events

tapemc.device.cmdAllocFail

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot obtain a command block for sending operations to the device.

Corrective Action

This problem is probably a temporary resource shortage within Data ONTAP. Retry the operation.

Syslog Message

Failed to allocate SCSI command block for %s device %s.

Parameters

deviceType (STRING): Type of device on which the command allocation failed.
deviceName (STRING): Name of the device.

tapemc.device.lunNotConn

Severity

ERROR

Description

This message occurs when the tape drive, media changer, or bridge device is reported as not being connected to its dependent LUN even though it indicated that the LUN device exists. Data ONTAP® cannot initialize the dependent device.

Corrective Action

Consult the vendor documentation for the attached device to ensure that the device is configured correctly.

Syslog Message

Aborting initialization of device %s at address L%d. The attached hardware indicates that no device is available at that LUN address.

Parameters

devName (STRING): Name of the device.
lun (INT): LUN number of this device.

tapemc.device.maxExceed

Severity

ERROR

Description

This message occurs when more than the maximum supported number of devices of the reported type are attached to the controller.

Corrective Action

The reported device cannot be accessed. If other devices of the same type are attached but unused, removing them can allow the named device to be reattached and used. For FC devices, unplug the devices and wait for the messages that indicate the devices have been removed. For SCSI devices, use the

"storage adapter disable [name]" (7-Mode or Cluster-Mode nodeshell) command.

Syslog Message

Maximum number of %s devices exceeded. Device %s cannot be accessed. The maximum is %d.

Parameters

deviceType (STRING): Type of device that exceeded the maximum number allowed.
deviceName (STRING): Name of the device.
deviceMax (INT): Maximum number of devices of this device type.

tapemc.device.multipath

Severity

ERROR

Description

This message occurs when a tape drive or media changer is reported as having a multipath connection when alias mapping is WWNN-based. WWNN-based aliasing does not support multipath connections.

Corrective Action

Remove the multipath connection to the device. If multipathing is required: 1. Reboot or takeover the node and enter the boot menu (LOADER>) by pressing Ctrl+C when prompted. 2. Enter "unsetenv bootar.tape_mc.wwnn_alias?". 3. Enter "boot_ontap" to reboot the node. Aliasing will now be serial number-based.

Syslog Message

%s device "%s" has a multipath connection with WWNN-based alias mapping. Multipath configurations are only supported with serial number-based aliases.

Parameters

deviceType (STRING): Type of device.
deviceName (STRING): Name of the device.

tapemc.device.noSerial

Severity

ERROR

Description

This message occurs when the device can not return a serial number when requested to do so. The device can still be used, but the serial number will not be available for output.

Corrective Action

This condition might be normal, especially with older device types, because SCSI-2 does not require serial numbers. If the vendor documentation indicates that the serial number should be available (look for a serial number request as an option of the Inquiry command), the device might need to be repaired.

Syslog Message

Serial number not available for %s device %s, product ID %s.

Parameters

> **devType** (STRING): SCSI device type.
> **devAddr** (STRING): Device address.
> **prodID** (STRING): Vendor product ID of the device.

tapemc.device.notExpected

Severity

> ERROR

Description

> This message occurs when Data ONTAP® expects a media changer, tape device or bridgerouter but encounters an unexpected or unknown device type.

Corrective Action

> Consult the vendor documentation for the attached device to ensure that the device is configured correctly.

Syslog Message

> Aborting device initialization for %s. Expecting a %s device but discovered an unexpected %s device type.

Parameters

> **devName** (STRING): Name of the device.
> **expectedDevType** (STRING): Expected SCSI device type.
> **actualDevType** (STRING): Actual SCSI device type discovered.

tapemc.device.notSCSI2

Severity

> ERROR

Description

> This message occurs when Data ONTAP® requires that parallel SCSI and FC devices support, at a minimum, the SCSI-2 protocol. This device does not have the minimum support, and cannot be used with Data ONTAP unless it is upgraded.

Corrective Action

> Verify with vendor documentation that the device supports at least the SCSI-2 protocol. If it does, then the device might need to be power-cycled or repaired. Check with the vendor whether an upgrade to SCSI-2 is possible.

Syslog Message

> %s device %s not configured to support SCSI-2.

Parameters

> **devType** (STRING): SCSI device type.
> **devAddr** (STRING): Name of the device.

tapemc.device.releaseFail

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot remove a SCSI Persistent Reservation from this device.

Corrective Action

Attempt the manual release of the reservation using the "storage release [tape|mc]" command (from the nodeshell in clustered environments) at the advanced privilege level. If the error persists, the device might need to be power-cycled.

Syslog Message

Device reservation release failed on %s device %s.

Parameters

deviceType (STRING): Type of device on which the reservation release failed.
deviceName (STRING): Name of the device.

tapemc.device.resvConfl

Severity

ERROR

Description

This message occurs when Data ONTAP® detects a SCSI reservation conflict while accessing this device. Data ONTAP routinely places reservations on devices to prevent multiple simultaneous accesses by more than one storage controller. A reservation conflict indicates that an existing reservation for another host system has been detected. Conflicts might occur in some error conditions where a reservation has been left on the device inadvertently, or if a device has been moved from one system to another without a power-cycle.

Corrective Action

If another system is using the device, then this error is normal and no corrective action should be taken to release the reservation. If the reporting system is the only user, then the reservation is likely an error. Attempt manual release of the reservation using via the "storage release [tape|mc]" (from the nodeshell) command at the advanced privilege level. If the error persists, the device might need to be power-cycled.

Syslog Message

Reservation conflict on %s device %s.

Parameters

deviceType (STRING): Type of device on which the reservation release failed.
deviceName (STRING): Name of the device.

tapemc.iopending events

tapemc.iopending.exceeded

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP® detects that multiple I/Os were sent to a device that supports only one I/O at a time.

Corrective Action

(None).

Syslog Message

%s device %s has more than one I/O pending, but the device supports only one I/O at a time.

Parameters

deviceType (STRING): Type of device that multiple I/Os were sent to.
deviceName (STRING): Name of the device.

tapemc.passthru events

tapemc.passthru.negUnderrun

Severity

ERROR

Description

This message occurs when a data underrun (less data is transferred than requested) happens on a read operation to the device, and the number of data bytes reported as not transferred is unexpectedly larger than the number of bytes requested. Any data involved in the transfer might not be correct. Underruns themselves can be normal if the amount of date available to transfer can be smaller than the requested amount.

Corrective Action

Retry the operation. If the command was expected to fail, or if the failure is inconsequential, then you can ignore this condition. Otherwise, ensure that the cables and terminators (if any) are fully seated and tightened snugly. If the error persists, consider replacing the cable/terminator, host adapter or device.

Syslog Message

%s %s inbound data transfer ended with an underrun, but the reported residue %d (bytes not transferred) exceeds the request size %d.

Parameters

deviceType (STRING): Type of device.
deviceName (STRING): Path name of the device.
resideBytes (INT): Number of bytes reported as not transferred.
requestedBytes (INT): Number of bytes requested.

tapemc.sas events

tapemc.SAS.dedicatedPort

Severity

ERROR

Description

This message occurs when Data ONTAP® detects a SAS device that is connected to a port that is dedicated for SAS disk storage attachment, but is not a disk shelf or a bridge device.

Corrective Action

Connect the device using another available port.

Syslog Message

"%s" device type should not be connected to port %s, which is dedicated to disk storage attachment. Connect it using another available port.

Parameters

deviceType (STRING): Type of device connected to the port.
connectionPort (STRING): Connection port for the device.

tapemc.SAS.not.supported

Severity

ERROR

Description

This message occurs when a serial attached SCSI (SAS) tape or media changer is detected that is not allowed to be attached to this system. This is likely due to the SAS connections being reserved for disk shelf attachment. Tape drives and media changers cannot reliably share a SAS interface with disk drives.

Corrective Action

Remove the SAS tape or media changer device.

Syslog Message

Attaching a SAS tape or media changer device on adapter "%s" is not supported on this system.

Parameters

AdapterName (STRING): Adapter name to which the tape device is attached.

tapemc.unsupported events

tapemc.unsupported.allow

Severity

ERROR

Description

This message occurs when a tape or media changer is detected that is not supported on this system, but its usage is not blocked. Use at your own risk.

Corrective Action

Remove the tape or media changer device, or use at your own risk.

Syslog Message

Attaching a tape or media changer device on adapter %s is not supported on this system.

Parameters

    AdapterName (STRING): Adapter name to which the tape device is attached.

tar events

tar.csum events

tar.csum.csumUnsuccessful

Severity

NOTICE

Description

This message occurs when the system accesses a TAR archive and compares the calculated checksum of this archive to a stored checksum, but the checksum calculation does not succeed.

Corrective Action

(None).

Syslog Message

Checksum of %s could not be calculated.

Parameters

tgz_path (STRING): Path to the archive for which the checksum calculation failed.

tar.csum.extractFailed

Severity

ERROR

Description

This message occurs when the system accesses a TAR archive and compares the calculated checksum of the archive to a stored checksum, but the extraction of such an archive fails.

Corrective Action

(None).

Syslog Message

TAR extraction of %s failed with rc=%d.

Parameters

tgz_path (STRING): Path to the archive for which extraction failed.
rc (INT): Error code clarifying why the extraction of the archive failed.

tar.csum.match

Severity

INFORMATIONAL

Description

This message occurs when the system accesses a TAR archive and compares the calculated checksum of the archive to a stored checksum. In this case, the calculated and stored checksums for the archive match.

Corrective Action

(None).

Syslog Message

Stored checksum matches, not extracting %s.

Parameters

tgz_path (STRING): Path to the archive for which the calculated and stored checksums match.

tar.csum.mismatch

Severity

NOTICE

Description

This message occurs when the system accesses a TAR archive and compares the calculated checksum of the archive to a stored checksum. In this case, the calculated and stored checksums for the TAR archive do not match.

Corrective Action

(None).

Syslog Message

Stored checksum %u does not match calculated checksum %u, extracting %s.

Parameters

stored_csum (INTHEX): Value of the stored checksum.
calculated_csum (INTHEX): Value of the calculated checksum.
tgz_path (STRING): Path to the archive for which the calculated and stored checksums do not match.

tar.csum.notFound

Severity

NOTICE

Description

This message occurs when the system accesses a TAR archive and compares the calculated checksum of the archive to a stored checksum. In this case, the file containing the stored checksum does not exist, necessitating the extraction of the archive.

Corrective Action

(None).

Syslog Message

Stored checksum file does not exist, extracting %s.

Parameters

tgz_path (STRING): Path to the archive for which a corresponding stored checksum file does not exist.

tar.extract events

tar.extract.failure

Severity

ERROR

Description

This message occurs during the process of extracting a TAR archive, when an error while processing a particular entry causes the extraction of the archive to fail.

Corrective Action

(None).

Syslog Message

Failure while extracting file (%d): '%s' %s.

Parameters

type (INT): Type identifier of the TAR archive entry being processed when the error was encountered. Type identifiers and corresponding file types are as follows: 48 = Regular file, 49 = Hard link, 50 = Symbolic link, 51 = Character device, 52 = Block device, 53 = Directory, 54 = FIFO special file, 55 = Reserved.
path (STRING): Relative path of the TAR archive entry being processed when the error was encountered.
errstr (STRING): Error string providing more information about the error that caused the extraction process to fail.

tar.extract.success

Severity

INFORMATIONAL

Description

This message occurs when a TAR archive has been successfully extracted.

Corrective Action

(None).

Syslog Message

Completed extracting %s.

Parameters

path (STRING): Path to the TAR archive that has been successfully extracted.

tar.extract.unhandledType

Severity

ERROR

Description

This message occurs during the process of extracting a TAR archive, when the system discovers an entry that has an unsupported type identifier.

Corrective Action

(None).

Syslog Message

File: %s has unhandled file type: %d.

Parameters

path (STRING): Relative path of this entry of the TAR archive.
type (INT): Type code of this entry of the TAR archive. Type identifiers and corresponding file types are as follows: 48 = Regular file, 49 = Hard link, 50 = Symbolic link, 51 = Character device, 52 = Block device, 53 = Directory, 54 = FIFO special file, 55 = Reserved.

tcp events

tcp.cc events

tcp.cc.NewRenoInUpgrade

Severity

ERROR

Description

This message occurs when the system is configured to use the TCP NewReno congestion control algorithm. The TCP CUBIC algorithm is the recommended algorithm.

Corrective Action

The TCP NewReno congestion control algorithm is selected for the Default IPspace in 9.8 based on the system's previous configuration. Confirm that TCP NewReno is the desired algorithm. NetApp recommends the CUBIC TCP congestion control algorithm in most cases. Use the "network options congestion-control modify" command to change the congestion control algorithm.

Syslog Message

The system is configured to use the NewReno congestion control algorithm, which is not recommended.

Parameters

(None).

tcp.change events

tcp.change.cc.algorithm

Severity

ERROR

Description

This message occurs when an attempt to change the TCP congestion control algorithm fails.

Corrective Action

Check the node health, address any issues found, and then try the command again.

Syslog Message

An error (out of memory) occurred while changing the TCP congestion control algorithm of existing connection(s) to %s. The NewReno (RFC6582) will be used as the congestion control algorithm for those connections.

Parameters

cc_algo (STRING): Name of the congestion control algorithm to which the change was attempted.

tcpip events

tcpip.conn events

tcpip.conn.leaked

Severity

INFORMATIONAL

Description

This message occurs when a connection is leaked because it can't be closed.

Corrective Action

Many leaked connections could lead to degraded system performance. A power cycle will fix this.

Syslog Message

Connection %u to remote IP %s on vif %u using service %u over %s leaked because it could not be closed.

Parameters

CID (INT): Connection ID that was leaked.
remoteIPAddr (STRING): The remote IP to which the leaked connection was connected.
VIF (INT): The VIF on which this connection was located.
serviceType (INT): The service being used on the leaked connection.
protocol (STRING): The protocol being used on the leaked connection.

tcpip.duplicate events

tcpip.duplicate.ip

Severity

ERROR

Description

This message occurs when the local node detects that it and some other device are using the same IP address.

Corrective Action

Check the IP address configuration on both the local node and the device using the Ethernet MAC address. Modify or remove the IP address on whichever device is misconfigured.

Syslog Message

Duplicate IP address %s sent from link address %s.

Parameters

ipAddress (STRING): IP address under contention.
macAddress (STRING): Ethernet MAC address of the other device.

telnet events

telnet.enabled events

telnet.enabled

Severity

NOTICE

Description

This message occurs when telnet is enabled in the cluster using the (privilege: advanced) "security protocol" command.

Corrective Action

(None).

Syslog Message

Insecure protocol service telnet has been enabled in the cluster.

Parameters

(None).

telnet.firewall events

telnet.firewall.remove

Severity

NOTICE

Description

This message occurs when telnet is automatically removed from firewall policies during a revert operation from Data ONTAP® 9.0 to 8.3. Telnet is removed because it is an insecure protocol and it is by default disabled in Data ONTAP 9.0. In Data ONTAP 8.3, the presence of telnet in firewall policies after a revert operation enables telnet. To prevent this, the telnet firewall policy is removed during the operation.

Corrective Action

Use the "system services firewall policy create" command to reenable telnet.

Syslog Message

Telnet removed from firewall policy because of Data ONTAP revert operations. Telnet is now disabled.

Parameters

(None).

telnet.setsockopt events

telnet.setsockopt.failure

Severity

ERROR

Description

This message occurs when setsockopt on telnet socket fails

Corrective Action

Use the error code contained in this message to determine the problem.

Syslog Message

Telnet setsockopt error: option %s, option value %s, error code %d (%s).

Parameters

socketlevel (STRING): This is the socket option level parameter
socketoption (STRING): This is the socket option value parameter
errorcode (INT): This is the error code returned from setsockopt
reason (STRING): Reason why setsockopt failed on telnet socket.

telnet.socket events

telnet.socket.failure

Severity

ERROR

Description

This message occurs when telnet could not create a socket.

Corrective Action

Change the option 'telnet.port', to try to create another socket.

Syslog Message

Telnet socket error: %s.

Parameters

reason (STRING): Reason why telnet could not create a socket.

telnet.socket.timeout

Severity

ERROR

Description

This message occurs when a telnet daemon socket was not able to send data to the telnet or ssh client after multiple attempts. This message can also occur when the client window size is set to zero by the telnet or ssh client.

Corrective Action

Check the window size of the telnet/ssh client by typing "netstat" on the storage system. If it is zero, close the client and restart that session. Otherwise check for any network problem between telnet/ssh client and storage system and correct it.

Syslog Message

Telnet daemon socket timed out for the %s connection.

Parameters

conntype (STRING): The type of connection that timed out. The connection type can be an interactive SSH connection or a telnet connection.

telnet.threadcreate events

telnet.threadCreate.failure

Severity

ERROR

Description

This message occurs when creation of telnet daemon threads or telnet session threads fails because required virtual memory is unavailable. This happens when the system is overloaded.

Corrective Action

Reduce the number of applications running on the storage system, then retry the operation.

Syslog Message

Creation of %s thread failed.

Parameters

threadName (STRING): Name of the thread that cannot be created.

tls events

tls.insecure events

tls.insecure.cipher

Severity

ERROR

Description

This message occurs when during the TLS handshake a peer negotiates a cipher suite that is no longer considered sufficiently secure to be enabled in the default configuration. TLS connections with this peer should be be presumed insecure, and could be disrupted.

Corrective Action

The issue primarily needs to be resolved on the peer side. Typically, the problem is that the SSL/TLS libraries on the peer are outdated and don't support more modern cipher suites. Once all peers identified by this event have been resolved and the event is no longer being observed, it is advised to disable the cipher suite in question on this system via the "security config modify" command.

Syslog Message

A TLS peer with IP %s has been connected with using the insecure cipher suite %s.

Parameters

ip (STRING): IP address of the offending peer.
cipher_suite (STRING): Cipher suite used by the offending peer.

tls.insecure.protocol

Severity

ERROR

Description

This message occurs when during the TLS handshake a peer negotiates a protocol level that is no longer considered sufficiently secure to be enabled in the default configuration. TLS connections with this peer should be be presumed insecure, and could be disrupted.

Corrective Action

The issue primarily needs to be resolved on the peer side. Typically, the problem is that the SSL/TLS libraries on the peer are outdated and don't support more modern protocol levels. Once all peers identified by this event have been resolved and the event is no longer being observed, it is advised to disable the protocol level in question on this system via the "security config modify" command.

Syslog Message

A TLS peer with IP %s has been connected with using the insecure protocol level %s.

Parameters

ip (STRING): IP address of the offending peer.
protocol_level (STRING): Protocol level used by the offending peer.

tls.unused events

tls.unused.cipher

Severity

INFORMATIONAL

Description

This message occurs when a cipher suite that is enabled in the configuration has not been used in any TLS handshakes for a user-specified duration of time.

Corrective Action

Confirm that all known TLS peers have connected to the system within the specified duration of time. If this is not the case, consider increasing the used-age-threshold parameter of the "security config modify" command. Otherwise, consider disabling the unused cipher suite using the supported-cipher-suites parameter of the same command, as this will increase the security of the system with respect to TLS.

Syslog Message

The TLS cipher suite %s has not been used for at least %s.

Parameters

cipher_suite (STRING): Cipher suite that is unused.
duration (STRING): Length of time (D/H/M/S) that the cipher suite has been unused.

tls.unused.protocol

Severity

INFORMATIONAL

Description

This message occurs when a protocol level that is enabled in the configuration has not been used in any TLS handshakes for a user-specified duration of time.

Corrective Action

Confirm that all known TLS peers have connected to the system within the specified duration of time. If this is not the case, consider increasing the used-age-threshold parameter of the "security config modify" command. Otherwise, consider disabling the unused protocol level using the supported-protocols parameter of the same command, as this will increase the security of the system with respect to TLS. For example, if only TLSv1.2 is in use, disabling TLSv1.1 (and lower) is advised.

Syslog Message

The TLS protocol level %s has not been used for at least %s.

Parameters

protocol_level (STRING): Protocol level that is unused.
duration (STRING): Length of time (D/H/M/S) that the protocol level has been unused.

token events

token.copy events

token.copy.complete.info

Severity

NOTICE

Description

This message occurs when a 'copy complete' request fails to free the reference on a remote node.

Corrective Action

(None).

Syslog Message

A 'copy complete' request on node %s and volume DSID %d failed - %s.

Parameters

blade_id (STRING): Blade ID of the node to which the 'copy complete' request was sent.
dsid (LONGINT): DSID of the source volume where the token was created.
reason (STRING): Reason for the failure.

token.inactive events

token.inactive.ref.deleted

Severity

NOTICE

Description

This message occurs when a reference is deleted on a token that has existed for longer than the timeout window. The reference is deleted to clear stale entries in the cache.

Corrective Action

(None).

Syslog Message

Reference %s of token %d in volume %s was deleted.

Parameters

blade_id (STRING): Blade ID of the token reference that was deleted.
index (INT): Index of the token whose reference was deleted.
volume_name (STRING): Name of the volume whose token's reference was deleted.

token.max events

token.max.count.in.volume

Severity

INFORMATIONAL

Description

This message occurs when the maximum number of tokens that can be created in a volume is determined.

Corrective Action

(None).

Syslog Message

Volume %s can contain up to %d tokens.

Parameters

volume_name (STRING): Name of the volume in which tokens can be created.
max (INT): Maximum number of tokens in the volume.

token.node events

token.node.max.count.reached

Severity

NOTICE

Description

This message occurs when the maximum number of tokens per node is reached. Tokens cannot be created in the node unless some existing tokens expire.

Corrective Action

(None).

Syslog Message

Tokens cannot be created on this node because the maximum number of tokens per node has been reached.

Parameters

(None).

token.node.out.of.quorum

Severity

NOTICE

Description

This message occurs when a node goes out of quorum. Any references on a token by that node will be dropped.

Corrective Action

(None).

Syslog Message

All token references from node (ID - %s) are dropped because the node went out of quorum.

Parameters

blade_id (STRING): Blade ID of the node that went out of quorum.

token.pit events

token.pit.file.create.info

Severity

NOTICE

Description

This message occurs when the token manager cannot create a PIT file in a volume. This can happen for the following reasons: insufficient space in the volume, unable to create the directory, or unable to set attributes.

Corrective Action

(None).

Syslog Message

PIT file creation in volume %s failed - %s.

Parameters

volume_name (STRING): Name of the volume in which PIT file creation failed.
reason (STRING): Reason for the failure.

token.pit.file.deleted

Severity

NOTICE

Description

This message occurs when the PIT file of a volume is deleted. A new PIT file will be created automatically during the first 'token create' request for this volume.

Corrective Action

(None).

Syslog Message

PIT file in volume %s was deleted.

Parameters

volume_name (STRING): Name of the volume in which the PIT file was deleted.

token.vol events

token.vol.cache.cleared

Severity

NOTICE

Description

This message occurs when a 'volume offline' operation results in clearing the token cache for that volume.

Corrective Action

(None).

Syslog Message

Token cache for volume %s was cleared because the volume went offline.

Parameters

volume_name (STRING): Name of the volume whose token cache was cleared.

token.vol.is.compressed

Severity

NOTICE

Description

This message occurs when a 'token create' request fails because the container is a compressed volume.

Corrective Action

(None).

Syslog Message

A 'token create' request in volume %s failed because the volume is compressed.

Parameters

volume_name (STRING): Name of the volume for which the 'token create' request failed.

token.vol.is.sparse

Severity

NOTICE

Description

This message occurs when a 'token create' request fails because the container is a sparse volume.

Corrective Action

(None).

Syslog Message

A 'token create' request in volume %s failed because the volume is sparse.

Parameters

volume_name (STRING): Name of the volume for which the 'token create' request failed.

token.vol.max.count.reached

Severity

NOTICE

Description

This message occurs when the maximum number of tokens per volume is reached. Tokens cannot be created in the volume unless some existing tokens expire.

Corrective Action

(None).

Syslog Message

Tokens cannot be created in volume %s because the maximum number of tokens per volume has been reached.

Parameters

volume_name (STRING): Name of the volume in which the maximum number of tokens has been reached.

tsse events

tsse.scan events

tsse.scan.catalog.failed

Deprecated

Deprecated as of version 9.13.1.

Severity

ERROR

Description

This message occurs when inactive data compression scan related information failed to be updated on the catalog file.

Corrective Action

(None).

Syslog Message

Cold Data Scan catalog update failed on '%s' - %s.

Parameters

vol (STRING): Volume name.
fail_message (STRING): Update failure reason.

tsse.scan.catalog.updated

Deprecated

Deprecated as of version 9.13.1.

Severity

NOTICE

Description

This message occurs when inactive data compression scan related information updated on the catalog file.

Corrective Action

(None).

Syslog Message

Cold Data Scan catalog updated on '%s' (SE ratio local: %s, SE ratio migrate: %s, Incompressible: %llu%%, Hot data: %llu%%, Mode: %d, SE ratio cold migrate: %s).

Parameters

vol (STRING): Volume name.
se_ratio_local (STRING): SE Ratio for local reporting.
se_ratio_migrate (STRING): SE Ratio for migrate reporting.
incomp_data_pct (LONGINT): Incompressible data percentage.
hot_data_pct (LONGINT): Hot data percentage.

scan_mode (INT): Scan mode.
se_ratio_cold_migrate (STRING): SE Ratio for Cold migrate reporting.

tsse.scan.start.failed

Severity

NOTICE

Description

This message occurs when either inactive data compression or garbage collect or garbage collect reclamation Scan fails to start.

Corrective Action

(None).

Syslog Message

'%s' failed to start on '%s' - %s.

Parameters

scan_type (STRING): Scan type.
vol (STRING): Volume or aggregate name.
fail_message (STRING): Scan failure reason.

ucm events

ucm.disabled events

ucm.disabled.slot

Severity

ERROR

Description

This message occurs when the Unified Target Adapter reads an invalid mode from flash memory. The valid supported modes are FC (0x1) or CNA (0x2). The adapter's flash memory has failed or has been corrupted. The adapter will be disabled.

Corrective Action

Contact NetApp technical support.

Syslog Message

Disabling adapter %s because invalid mode %d was read from nonvolatile memory.

Parameters

adapter (STRING): Name of the affected adapter.
faultyMode (INT): Value of the mode read from flash memory.

ucm.mode events

ucm.mode.autoReboot

Severity

INFORMATIONAL

Description

This message occurs when the FC adapter or converged networking adapter is reconfigured from a backup. The reconfiguration requires a reboot to enable correct adapter operation. The reboot occurs automatically.

Corrective Action

A change in the FC adapter or converged networking adapter mode configuration has occurred. The system is being rebooted to enable the new adapter configuration.

Syslog Message

Rebooting for adapters %s to become available.

Parameters

adapters (STRING): Affected adapters.

ucm.mode.changed

Severity

INFORMATIONAL

Description

This message occurs when the user changes the personality mode on a configurable adapter. The new mode will take effect on the next controller reboot.

Corrective Action

(None).

Syslog Message

Personality mode has changed to %s on adapter %s. Reboot the controller for the changes to take effect.

Parameters

mode (STRING): Current adapter mode.
adapter (STRING): Name of the associated adapter.

ucm.mode.needsReboot

Severity

ERROR

Description

This message occurs when the FC adapter or converged networking adapter is unable to automatically initiate a reboot after it reconfigures from a backup. The reconfiguration requires a reboot to enable correct adapter operation.

Corrective Action

Perform a planned takeover and giveback on this controller node to enable the new adapter configuration.

Syslog Message

The adapter %s was unable to automatically initiate a reboot after reconfiguration from the backup.

Parameters

adapters (STRING): Affected adapter or adapters.

ucm.type events

ucm.type.changed

Severity

INFORMATIONAL

Description

This message occurs when the user changes the FC-4 type on a configurable adapter. The new type will take effect on the next controller reboot.

Corrective Action

(None).

Syslog Message

FC-4 type has changed to %s on adapter %s. Reboot the controller for the changes to take effect.

Parameters

type (STRING): Current adapter type.
adapter (STRING): Name of the associated adapter.

ucore events

ucore.error events

ucore.error

Severity

ERROR

Description

This message occurs when there is an error while processing a user space core dump.

Corrective Action

Contact NetApp technical support.

Syslog Message

Could not dump core for process ID %d (%s). Reason: %s.

Parameters

process_id (INT): Process ID of the process.
process_name (STRING): Name of the process.
reason (STRING): Error condition encountered.

ucore.limit events

ucore.limit.exceeded

Severity

ERROR

Description

This message occurs when a userspace core is not dumped because the limit for the directory has been exceeded. This happens before the mroot is mounted, and the CompactFlash® card is used as a temporary dump location.

Corrective Action

Move the core off the /cfcard directory if the system has not done so automatically.

Syslog Message

'Exceeded limit for directory %s.'

Parameters

directory_name (STRING): Current coredump directory.

ucore.limits events

ucore.limits.reached

Severity

ERROR

Description

This message occurs when a userspace core is not dumped because system limits for this process are reached.

Corrective Action

Contact NetApp technical support.

Syslog Message

Process ID %d (%s) cannot be dumped because system limits for this process are reached.

Parameters

process_id (INT): Process ID of the process.
process_name (STRING): Name of the process.

ucore.not events

ucore.not.enabled

Severity

ERROR

Description

This message occurs when a userspace core cannot be dumped either because coredumps are not enabled or because the process called setuid, and coredump is disabled for processes that have changed their user credentials.

Corrective Action

Contact NetApp technical support.

Syslog Message

'Process ID %d (%s) cannot be dumped because coredumps are not enabled.'

Parameters

process_id (INT): Process ID of the process.
process_name (STRING): The name of the process.

ucore.panicstring events

ucore.panicString

Severity

ERROR

Description

This event occurs when a userspace application crashes, and we manage to obtain a panic string indicating the cause of the crash.

Corrective Action

Contact customer support, and if necessary upload the core and/or the core report.

Syslog Message

'%s'

Parameters

panic_string (STRING): The panic string of the crashed process.
process_name (STRING): The name of the crashed process.
fault_type (STRING): The type of fault we encountered (eg SIGSEGV, SIGHUP).

ucore.ulimit0 events

ucore.ulimit0

Deprecated

This event is deprecated as of ONTAP 9.2.

Severity

ERROR

Description

This message occurs when a userspace core is not dumped because the core size limit is set to 0.

Corrective Action

Contact NetApp technical support.

Syslog Message

'Process ID %d (%s) cannot be dumped because the coredump ulimit is set to 0.'

Parameters

process_id (INT): Process ID of the process.
process_name (STRING): Name of the process.

unowned events

unowned.disk events

unowned.disk.reminder

Severity

INFORMATIONAL

Description

This message occurs when the system has unowned/unassigned disks. Use the "disk assign" command to assign the disks to the systems so that they can be used.

Corrective Action

Use 'disk show -n' to determine which disks are unowned. Use 'disk assign' to assign ownership of the disks to a system.

Syslog Message

%d disks are currently unowned. Use the "disk assign" command to assign the disks to a system.

Parameters

count (INT): Number of unowned disks.

upgrademgr events

upgrademgr.cmd events

upgrademgr.cmd.invoke.done

Severity

NOTICE

Description

This message occurs when the execution of the commands listed in the support file has completed.

Corrective Action

(None).

Syslog Message

The commands are invoked from the support file: %s

Parameters

command (STRING): Commands that are invoked from the support file when the automated nondisruptive upgrade (ANDU) has completed.

upgrademgr.cmd.invoke.start

Severity

NOTICE

Description

This message occurs when the support file is invoked by an automated nondisruptive upgrade (ANDU).

Corrective Action

(None).

Syslog Message

The commands are invoked from the support file: %s

Parameters

command (STRING): Commands that are invoked from the support file when the ANDU has started.

upgrademgr.fw events

upgrademgr.fw.monitor.end

Severity

NOTICE

Description

This message occurs when an automated nondisruptive upgrade (ANDU) completes the firmware update monitoring job.

Corrective Action

    (None).

Syslog Message

    ANDU firmware update monitoring job completed. Status: %s.

Parameters

    status (STRING): Status of overall firmware monitoring job.

upgrademgr.fw.monitor.start

Severity

    NOTICE

Description

    This message occurs when an automated nondisruptive upgrade (ANDU) starts a firmware update monitoring job.

Corrective Action

    (None).

Syslog Message

    ANDU firmware update monitoring job started.

Parameters

    (None).

upgrademgr.fw.unsupported

Severity

    NOTICE

Description

    This message occurs when an automated nondisruptive upgrade (ANDU) runs on a platform that does not have SP/BMC API support.

Corrective Action

    (None).

Syslog Message

    ANDU firmware update monitoring job skipped because "%s"

Parameters

    reason (STRING): ANDU firmware monitoring is not supported on this platform.

upgrademgr.fw.update.fail

Severity

    ERROR

Description

This message occurs when a firmware update has failed for any of the firmware components.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

ANDU firmware update failed for firmware component: %s. Status: %s.

Parameters

firmware_name (STRING): Firmware component whose update has failed.
status (STRING): Category of failure for the firmware component whose update has failed.

upgrademgr.lifmigrate events

upgrademgr.LIFmigrate.end

Severity

NOTICE

Description

This message occurs when an ONTAP automated nondisruptive upgrade (ANDU) of ONTAP finishes the data LIF migration or failover stage.

Corrective Action

(None).

Syslog Message

ANDU in "%s" mode finishes the LIF migration. Result: %s.

Parameters

mode (STRING): ONTAP ANDU is selecting nodes based on the "batch" or "rolling" upgrade mode.
result (STRING): Result of the LIF migrations - "Success" or "Failure".

upgrademgr.LIFmigrate.sfo

Severity

NOTICE

Description

This message occurs during an ONTAP automated nondisruptive upgrade (ANDU) of ONTAP in batch mode when a LIF migrated to the storage failover (SFO) partner rather than a destination node in another batch. This migration occurs because the selected destination node does not have network ports in the required broadcast domains.

Corrective Action

(None).

Syslog Message

LIF "%s" from node "%s" is migrated to SFO partner node "%s".

Parameters

lif_name (STRING): LIF being migrated.
source_node (STRING): Starting node of the LIF being migrated.
target_node (STRING): Target node of the LIF being migrated.

upgrademgr.LIFmigrate.start

Severity

NOTICE

Description

This message occurs when an ONTAP automated nondisruptive upgrade (ANDU) of ONTAP starts the data LIF migration or failover stage.

Corrective Action

(None).

Syslog Message

ANDU in "%s" mode starts data LIF migrations.

Parameters

mode (STRING): ONTAP ANDU selects nodes to migrate or failover data LIFs based on the "batch" or "rolling" upgrade mode.

upgrademgr.node events

upgrademgr.node.updateDone

Severity

INFORMATIONAL

Description

This message occurs when an update of node is completed successfully.

Corrective Action

(None).

Syslog Message

(None).

Parameters

node (STRING): Node that successfully completed the update.

upgrademgr.package events

upgrademgr.package.imported

Severity

INFORMATIONAL

Description

This message occurs when a Data ONTAP® package is successfully imported into the cluster and processed by the upgrade manager's package handler.

Corrective Action

(None).

Syslog Message

A Data ONTAP package "%s" with version "%s" was successfully imported into the package repository.

Parameters

package (STRING): Name of the imported package.
version (STRING): Version of the imported package.

upgrademgr.two events

upgrademgr.two.stage.started

Severity

NOTICE

Description

This message occurs when a two-stage version update starts on the cluster where the target release is two versions later than the current version. The cluster is upgraded to intermediate version first, and then upgraded to the target version.

Corrective Action

(None).

Syslog Message

Started two-stage Data ONTAP upgrade to target version "%s". Intermediate version: "%s".

Parameters

targetversion (STRING): Target Data ONTAP release version.
intermediateversion (STRING): Intermediate Data ONTAP release version.

upgrademgr.update events

upgrademgr.update.cancelled

Severity

INFORMATIONAL

Description

This message occurs when the automated update of the cluster is canceled by the operator.

Corrective Action

(None).

Syslog Message

The automated update of the cluster has been canceled by the operator.

Parameters

(None).

upgrademgr.update.completed

Severity

INFORMATIONAL

Description

This message occurs when the automated update of the cluster is complete.

Corrective Action

(None).

Syslog Message

The automated update of the cluster is complete.

Parameters

(None).

upgrademgr.update.pausedErr

Severity

ERROR

Description

This message occurs when the automated update of the cluster is paused as a result of an error.

Corrective Action

The automated update of the cluster has been paused due to the following reason: %s. Correct the cause of the error, and then issue the "cluster image resume-update" command to continue the automated update of the cluster.

Syslog Message

The automated update of the cluster has been paused due to the following reason: %s

Parameters

pausedSummary (STRING): Summary of the event causing the paused update.

upgrademgr.update.pausedUser

Severity

INFORMATIONAL

Description

This message occurs when the automated update of the cluster is paused as a result of an operator request.

Corrective Action

Issue the "cluster image resume-update" command to continue the automated update of the cluster.

Syslog Message

The automated update of the cluster has been paused due to a request by the operator.

Parameters

(None).

upgrademgr.update.resumed

Severity

INFORMATIONAL

Description

This message occurs when the automated update of the cluster is resumed from the paused state.

Corrective Action

(None).

Syslog Message

The automated update of the cluster has been resumed by the operator.

Parameters

(None).

upgrademgr.update.started

Severity

NOTICE

Description

This message occurs when the upgrade manager begins an automated update of the cluster. By default, nodes that are already upgraded to the target version are skipped, except for MetroCluster configurations.

Corrective Action

(None).

Syslog Message

An automated update of the cluster has been started on nodes:%s. Skipped nodes:%s.

Parameters

nodestoUpgrade (STRING): Nodes that will be upgraded
nodesSkipped (STRING): Nodes that will be skipped, or "none" if all nodes need an upgrade, or "disabled - MetroCluster" if the cluster is a MetroCluster configuration, or "disabled" if the "-skip-nodes-at-target-version" parameter is set to false.

usb events

usb.device events

usb.device.failed

Severity

ERROR

Description

This message occurs when multiple consecutive commands to the specified universal serial bus (USB) device are not completed within the allotted time. All recovery actions have been taken and the device cannot be used anymore.

Corrective Action

Ensure that all attached devices are supported devices and that they are seated correctly. If the problem persists, replace the attach devices. If the problem still persists, contact NetApp technical support for assistance in diagnosing a USB issue.

Syslog Message

Device %s attached to adapter %s has become unresponsive. Taking the device offline.

Parameters

deviceName (STRING): Name of the failed USB device.
adapterName (STRING): Name of the associated USB adapter.

usb.device.initialize.failed

Severity

ERROR

Description

This message occurs when the Data ONTAP® universal serial bus (USB) adapter driver fails to initialize the device attached to the associated port in the associated adapter for one of the following reasons: Cannot set a unique address for the device; device descriptor is invalid or contains incorrect data; cannot set an active configuration for the device or the device had multiple interfaces. Note that the Data ONTAP® USB driver only supports USB 2.0 bulk-only mass storage devices.

Corrective Action

If the device is connected to an external USB port, try reinserting the device. If that fails, try replacing the device with a device from a different product family. If the device is connected to the mother board and the problem persists, contact NetApp technical support for assistance in diagnosing a USB issue.

Syslog Message

Device attached to adapter %s, in port %d failed initialization, %s.

Parameters

adapterName (STRING): Name of the associated USB adapter.
port (INT): Associated port number.
error (STRING): Reason the device initialization failed.

usb.device.timeout

Severity

ERROR

Description

This message occurs when an outstanding command to the specified universal serial bus (USB) device is not completed within the allotted time. As part of the standard error handling sequence managed by the Data ONTAP® USB adapter driver, this command to the device is aborted and reissued.

Corrective Action

Device level timeouts are a common indication of a USB link stability problem. In some cases, the link is operating normally and the specified device is having internal trouble processing I/O requests in a timely manner. In such cases, evaluate the specified device for possible replacement. Quite often the problem results from the partial failure of a component involved in the USB transport. The most common thing to check is the seating of the USB device into the USB port or the header.

Syslog Message

Adapter %s encountered a device timeout on USB device %s.

Parameters

adapterName (STRING): Name of the associated USB adapter.
deviceName (STRING): Name of the USB device where the timeout occurred.

usb.device.unsupported.speed

Severity

ERROR

Description

This message occurs when the Data ONTAP® universal serial bus (USB) adapter driver detects a non high-speed device in the associated port.

Corrective Action

Remove all non high speed devices attached to the system because the Data ONTAP USB adapter driver does not support non high-speed devices.

Syslog Message

Ignoring non high-speed device detected in adapter %s on port %d.

Parameters

adapterName (STRING): Name of the associated USB adapter.
port (INT): Port number within the adapter to which the non high-speed device is connected.

usb.port events

usb.port.error

Severity

ERROR

Description

This message occurs when the Data ONTAP® universal serial bus (USB) adapter driver detects an unrecoverable error on the associated port.

Corrective Action

If a device is attached to the associated port, try reinserting the device. If that fails, try replacing the device. If the problem persists, contact NetApp technical support for assistance in diagnosing a USB issue.

Syslog Message

In adapter %s, unrecoverable error detected for port %d. Ignoring attached device.

Parameters

adapterName (STRING): Name of the associated USB adapter.
port (INT): Associated port number.

usbmon events

usbmon.boot events

usbmon.boot.device.failed

Severity

ERROR

Description

This message occurs when the Data ONTAP® module that is responsible for monitoring the health of the Universal Serial Bus (USB) boot devices determines that the associated boot device will fail all writes to the media.

Corrective Action

Replace the device.

Syslog Message

Boot device %s has become read-only.

Parameters

device (STRING): Name of the device.

usbmon.boot.device.pfa

Severity

ERROR

Description

This message occurs when the Data ONTAP® Universal Serial Bus (USB) boot device health monitor PFA (predictive failure analysis) determines that failure is forthcoming for the associated boot device.

Corrective Action

Replace the device.

Syslog Message

Failure predicted for boot device %s.

Parameters

device (STRING): Name of the device.

usbmon.unable events

usbmon.unable.to.monitor

Severity

ERROR

Description

This message occurs when the Data ONTAP® module that is responsible for monitoring the health of the Universal Serial Bus (USB) boot devices cannot extract health information from the monitored device.

Corrective Action

Replace the device. If the problem persists, contact NetApp technical support.

Syslog Message

Data ONTAP could not monitor device %s.

Parameters

device (STRING): Name of the device.

user events

user.group events

user.group.limit.reached

Severity

ERROR

Description

This message occurs when the number of UNIX users or groups in the cluster reaches or exceeds system limits. After the limit is reached, it will not be possible to add any new users, groups, or group members.

Corrective Action

Reduce the number of local users and groups stored in the cluster. Consider using directory services, such as NIS and LDAP. Alternatively, use the "vserver services limits modify" command to increase the system-wide limit.

Syslog Message

Total number of %s exceeds the system limit: %d.

Parameters

configuration (STRING): Name of the configuration table that is at the system limit.
maxAllowableEntries (INT): Maximum allowable number of local users or local group and group-members.

user.group.reaching.limit

Severity

ERROR

Description

This message occurs when the number of UNIX users or groups in the cluster reaches various percentage thresholds of the system limit.

Corrective Action

Reduce the number of local users and groups stored in the cluster. Consider using directory services, such as NIS and LDAP.

Syslog Message

Total number of %s has reached %s of the system limit: %d.

Parameters

configuration (STRING): Name of the configuration table with the system limit.
pct_of_limit (STRING): Percentage of the configuration table's system limit reached.
maxAllowableEntries (INT): Maximum allowable number of local users or local group and group-members.

useradmin events

useradmin.added events

useradmin.added.deleted

Severity

INFORMATIONAL

Description

A user, group, or role has been added, deleted, or modified.

Corrective Action

(None).

Syslog Message

The %s '%s' has been %s.

Parameters

type (STRING): The type of the affected useradmin name. This can be one of the following values: "user", "group", or "role".
name (STRING): The name of the affected user, group, or role.
action (STRING): The action that occurred to the subject. This can be one of the following values: "added", "deleted", or "modified".

useradmin.lockedout events

useradmin.lockedout.user

Severity

ERROR

Description

The user tried to log into the appliance using an invalid password and the account has been disabled. The amount of attempts a user has before being disabled is controled by the security.passwd.lockout.numtries option.

Corrective Action

Another administrator must change the password of the disabled user's account.

Syslog Message

User '%s' is locked out of the appliance for failing authentication '%d' times.

Parameters

username (STRING): The name of the user that is now locked out from the appliance
attempts (INT): The number of failed attempts that caused the lockout.

useradmin.name events

useradmin.name.too.long

Severity

ERROR

Description

This message occurs when an administrative name in the cluster is longer than the maximum allowed 255 characters.

Corrective Action

Assign administrative names that are no more than 255 characters.

Syslog Message

%s name : %s.. is too long

Parameters

type (STRING): Type of the name, which can be group, role or capability.
invalidname (STRING): Invalid name.

useradmin.registry events

useradmin.registry

Severity

ERROR

Description

This message occurs when the system encounters an internal registry error while reading the useradmin entries.

Corrective Action

If the error persists, contact NetApp technical support for further assistance.

Syslog Message

A general registry error occurred when %s.

Parameters

operation (STRING): Operation in execution when the registry error occurred.

useradmin.registry.specific

Severity

ERROR

Description

This message occurs when the system encounters an internal registry error while reading/writing a specific useradmin entry for a specific user.

Corrective Action

Try to delete and re-create the user/group/role. If this is does not work, then you may have to modify the registry directly.

Syslog Message

A general registry error occurred during a %s for %s: '%s'.

Parameters

operation (STRING): Operation in execution when the registry error occurred.
type (STRING): The type of name which is the source of the error. This can be one of the following values: "user", "group", "role", or "capability".
name (STRING): The name of the subject which is the source of the error.

useradmin.rootaccess events

useradmin.rootaccess.enabled

Severity

INFORMATIONAL

Description

The root account has been enabled or disabled because of the option security.rootaccess.enable. If this option is off, then the message appears on reboots and any time root tries to authenticate. A boot without etc/rc will not check this option, so root is temporarily enabled until the next boot.

Corrective Action

This event is informational-only. No action by the system administrator is necessary.

Syslog Message

root is %s due to a %s. Review option security.passwd.rootaccess.enable.

Parameters

status (STRING): This can be one of the following values: "enabled" or "disabled". If disabled, then root access is disabled.
location (STRING): Where the informational message appears. This can be in the authentication check (someone is checking root's password), reboot check (root is being disabled during a normal boot) manual change (someone changed the option manually)

vdisk events

vdisk.clonelogfull events

vdisk.clonelogFull

Severity

NOTICE

Description

LUN clone creation has failed because the limit on the maximum supported entries(32705) has been exceeded.

Corrective Action

Retry upon the completition of the pending clone operations for this volume.

Syslog Message

Logging the LUN clone creation has failed because the limit on the maximum supported clone log entries in the volume %s has been exceeded.

Parameters

vol_name (STRING): Name of the volume for which the LUN clone creation has failed.

vdom events

vdom.aggr events

vdom.aggr.bulkmount.timeout

Severity

INFORMATIONAL

Description

This message occurs when an internal timeout has been reached while processing volumes for an aggregate coming online during a takeover, giveback, or aggregate relocation event.

Corrective Action

(None).

Syslog Message

Bulk mount timed out for aggregate fsid %llu (start_time %llu, current_time %llu, volumes online %d, volumes expected %d).

Parameters

fsid (LONGINT): Fsid of the aggregate.
start_time (LONGINT): Time in milliseconds when the bulk mount timer started for the aggregate.
current_time (LONGINT): Time in milliseconds when the bulk mount timeout was reached.
vols_online (INT): Number of volume mounts that have been received for the aggregate.
vols_expected (INT): Number of volume mounts expected for the aggregate.

vdom.aggr.move.internal

Severity

INFORMATIONAL

Description

This message occurs when an individual mounted volume becomes unavailable through the source node after an aggregate relocation or giveback event.

Corrective Action

The destination node receives a notification that the volume has been mounted locally and updates the cluster accordingly.

Syslog Message

Availability of a volume in aggregate %s has been lost to the source node temporarily following aggregate relocation or giveback.

Parameters

aggr (STRING): Name of the aggregate that contains the volume.

vdom.unmapped events

VDOM.unmapped.event

Severity

NOTICE

Description

This message occurs for Virtual Disk Object Manager (VDOM) errors that do not currently map to specific VDOM EMS events.

Corrective Action

(None).

Syslog Message

VDOM error code %u occurred without a specific EMS event mapping, file: %s, line %u.

Parameters

vdom_error (INT): VDOM error code.
filename (STRING): Name of file containing error.
linenum (INT): Line number in file containing error.

vf events

vf.cleanup events

vf.cleanup.error

Severity

ERROR

Description

This event occurs when some subsystems are unable to cleanup properly when a local host vfiler is destroyed or when a partner vfiler is being shutdown during giveback.

Corrective Action

Log a support case with NetApp technical support. Try starting the vfiler, stopping and destroying it again.

Syslog Message

vfiler %s: %s subsystem could not cleanup properly.

Parameters

vfName (STRING): The vfiler being shutdown or destroyed.
module (STRING): The module which could not cleanup vfiler specific information properly.

vfiler events

vfiler.unable events

vFiler.unable.initModules

Severity

ERROR

Description

This message occurs during vFiler(tm) unit discovery, if one of the vFiler(tm) unit module initialization functions fails.

Corrective Action

(None).

Syslog Message

Could not initialize modules for vFiler unit "%s".

Parameters

vfName (STRING): The vFiler unit on the source.

vfilermigrate events

vfilermigrate.diskownershipmismatch events

vfilermigrate.diskOwnershipMismatch

Severity

ERROR

Description

The SnapMover feature is licensed but the disk ownership model is not using the software-based disk ownership model.

Corrective Action

Boot the filer into maintenance mode and use the 'disk assign' or 'disk upgrade_ownership' command to assign disk ownership.

Syslog Message

SnapMover is licensed but the system is not using software-based disk ownership.

Parameters

(None).

vifmgr events

vifmgr.bcastdomain events

vifmgr.bcastdomain.portadd

Severity

NOTICE

Description

This message occurs when a network port is added to a broadcast domain.

Corrective Action

(None).

Syslog Message

Network port %s on node %s was added to broadcast domain %s in IPspace %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
broadcastDomain (STRING): Name of the broadcast domain associated with the port.
ipspace (STRING): Name of the IPspace associated with the port.

vifmgr.bcastdomain.portrem

Severity

NOTICE

Description

This message occurs when a network port is removed from a broadcast domain.

Corrective Action

(None).

Syslog Message

Network port %s on node %s was removed from broadcast domain %s in IPspace %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
broadcastDomain (STRING): Name of the broadcast domain associated with the port.
ipspace (STRING): Name of the IPspace associated with the port.

vifmgr.bd events

vifmgr.bd.badmtu

Severity

ERROR

Description

This message occurs when an MTU is entered on a Broadcast Domain that its member ports cannot support. The ports that failed will continue using their present values.

Corrective Action

Change the MTU of the Broadcast Domain to a value supported by all member ports.

Syslog Message

In IPspace %s, Broadcast Domain %s has an MTU of %d, which is not supported by the following ports: %s.

Parameters

ipspace (STRING): Name of the IPspace in which the Broadcast Domain resides.
broadcast_domain (STRING): Name of the Broadcast Domain.
mtu (INT): MTU of the Broadcast Domain.
port_names (STRING): Ports in the Broadcast Domain that are failing.

vifmgr.bd.conflicts

Severity

ERROR

Description

This message occurs when the administrator modifies properties of a node management LIF while the node is out of quorum, and the broadcast domain of the home port, current port, and subnet are not all the same.

Corrective Action

The node management LIF's configuration before the node went out of quorum was automatically applied. You can change this configuration now that the node is online.

Syslog Message

LIF %s had mismatching broadcast domains. The previous values were: home-port (%s), current-port (%s), and subnet (%s).

Parameters

LIF (STRING): Name of the LIF.
home_port_bd (STRING): Broadcast domain name of this LIF's home port prior to going out of quorum.
current_port_bd (STRING): Broadcast domain name of this LIF's current port prior to going out of quorum.
sub_bd (STRING): Broadcast domain name of this LIF's subnet prior to going out of quorum.

vifmgr.bgp events

vifmgr.bgp.connected

Severity

NOTICE

Description

This message occurs when Logical Interface Manager (VifMgr) connects to BGP daemon.

Corrective Action

(None).

Syslog Message

VifMgr connected to BGP daemon on the node.

Parameters

(None).

vifmgr.bgp.defaults.upgrade

Severity

NOTICE

Description

This message occurs when the Autonomous System Number (ASN) in "bgp defaults" changes from the reserved number to the default number (65501).

Corrective Action

(None).

Syslog Message

Autonomous System Number (ASN) in "bgp defaults" was changed from the reserved number (%d) to the default number (65501).

Parameters

old_asn (INT): Reserved Autonomous System Number (ASN) in "bgp defaults" before it is changed.

vifmgr.bgp.disconnected

Severity

ERROR

Description

This message occurs when the connection between the Logical Interface Manager (VifMgr) and the BGP daemon is broken. The connection is automatically reestablished. In case the connection is not reestablished, any Virtual IP LIFs might fail over to another node.

Corrective Action

Verify that the BGP daemon restarted by looking for the "vifmgr.bgp.connected" event. If the BGP daemon fails to restart, or if the condition persists, contact NetApp technical support.

Syslog Message

The connection between VifMgr and the BGP daemon on the node is broken.

Parameters

(None).

vifmgr.bgp.peerGroupDown

Severity

NOTICE

Description

This message occurs when a Border Gateway Protocol (BGP) peer group goes down on a given IPspace. If this is the last active BGP session on this IPspace, vifmgr.bgp.vserverDown message gets generated and any virtual IP (VIP) LIF or LIFs in the data Vserver or data Vservers of this IPspace cannot be hosted on this node without an active BGP session.

Corrective Action

(None).

Syslog Message

The BGP peer group %s on IPspace %s is down.

Parameters

peer_group (STRING): Name of the BGP peer group.
peer_ipspace (STRING): IPspace of the BGP peer group.

vifmgr.bgp.peerGroupUp

Severity

NOTICE

Description

This message occurs when a BGP peer group goes up on a given IPspace. If this is the first active BGP session on this IPspace, vifmgr.bgp.vserverUp message gets generated and any VIP LIF or LIFs in the data Vserver or data Vservers of this IPspace can now be hosted on this node.

Corrective Action

(None).

Syslog Message

The BGP peer group %s on IPspace %s is up.

Parameters

peer_group (STRING): Name of the BGP peer group.
peer_ipspace (STRING): IPspace of the BGP peer group.

vifmgr.bgp.vserverDown

Severity

NOTICE

Description

This message occurs when a BGP down event is received for a system Vserver. Any VIP LIFs in the associated data Vservers can no longer handle network traffic.

Corrective Action

(None).

Syslog Message

VifMgr received a Vserver BGP down event for Vserver %s in IPspace %s.

Parameters

vserver (STRING): Name of the Vserver.
ipspace (STRING): Name of the IPspace where the Vserver resides.

vifmgr.bgp.vserverUp

Severity

NOTICE

Description

This message occurs when a BGP up event is received for a system Vserver. Any VIP LIFs in the associated data Vservers can now handle network traffic.

Corrective Action

(None).

Syslog Message

VifMgr received a Vserver BGP up event for Vserver %s in IPspace %s.

Parameters

vserver (STRING): Name of the Vserver.
ipspace (STRING): Name of the IPspace where the Vserver resides.

vifmgr.cdb events

vifmgr.cdb.merge.dupip

Severity

ALERT

Description

This message occurs when attempting to merge a LIF from the configuration database (CDB) to the replicated database (RDB), and the LIF from the CDB is found to have the same address as an existing LIF in the RDB.

Corrective Action

Modify the IP address of the conflicting LIF configured in the database.

Syslog Message

IP address %s is in use by multiple LIFs: local LIF %s (on node %s) and LIF %s (in IPspace %s) configured in the cluster database.

Parameters

vifip (STRING): IP address of the affected LIF.
locallif (STRING): Name of the local LIF.

node (STRING): Name of the node on which the local LIF resides.
dblif (STRING): Name of the conflicting LIF configured in the database.
ipspace (STRING): Name of the IPspace.

vifmgr.cdb.unavail

Severity

NOTICE

Description

This message occurs when the configuration database (CDB) for a node is not accessible. The node will continue without the CDB.

Corrective Action

(None).

Syslog Message

The CDB for node %s is not accessible.

Parameters

node (STRING): Name of the node.

vifmgr.clntdev events

vifmgr.clntdev.removed

Severity

NOTICE

Description

This message occurs when a remote device is removed from the cluster or storage network.

Corrective Action

(None).

Syslog Message

Remote device %s (model: %s) was removed from the %s network.

Parameters

device (STRING): Device name of the connected switch or node.
model (STRING): Model name of the remote device.
network (STRING): Network where the device was detected.

vifmgr.clntdev.updated

Severity

NOTICE

Description

This message occurs when a new remote device is detected on the cluster or storage network.

Corrective Action

(None).

Syslog Message

Remote device %s (model: %s, version: %s, IP address: %s) has been detected on the %s network.

Parameters

device (STRING): Device name of the connected switch or node.
model (STRING): Model name of the remote device.
version (STRING): Software version of the remote device.
address (STRING): IP address of the remote device.
network (STRING): Network where the device was detected.

vifmgr.clus events

vifmgr.clus.linkdown

Severity

EMERGENCY

Description

This message occurs when a cluster link goes down unexpectedly.

Corrective Action

Verify that the cable is plugged in properly to both the NIC and the switch, and that the switch is powered on. If these conditions are met and the cluster link remains down, search the knowledgebase of the NetApp support web site for the "cluster network degraded" keyword.

Syslog Message

The cluster port %s on node %s has gone down unexpectedly.

Parameters

portname (STRING): Name of the affected port.
nodename (STRING): Name of the node on which the affected port resides.

vifmgr.cluscheck events

vifmgr.cluscheck.assigned

Severity

NOTICE

Description

This message occurs when the named cluster logical interface (LIF) was not assigned to any network port and is now assigned to a port.

Corrective Action

(None).

Syslog Message

Cluster LIF %s (node %s) is now assigned to port %s.

Parameters

lif_name (STRING): Name of cluster LIF that was not assigned to a network port but now is.
node_name (STRING): Name of the node on which the cluster LIF that was not assigned to a port now resides.
port_name (STRING): Name of the port to which the LIF is now assigned.

vifmgr.cluscheck.badping

Severity

NOTICE

Description

This message occurs when the ping test for cluster logical interface (LIF) interconnnectivity displays unexpected results.

Corrective Action

Ensure connectivity amoung the cluster LIFs. Several issues that can cause this problem. Some things to check include the following: - Port connectivity to the correct network or switch - Link connectivity - Proper switch configuration - Proper LIF configuration

Syslog Message

Cluster check ping command (%s) failed: %d, %s.

Parameters

cmd_line (STRING): Ping test command line.
exit_status (INT): Ping test result.
cmd_output (STRING): Ping test command output.

vifmgr.cluscheck.crcerrors

Deprecated

Deprecated as of version 9.8.0 and replaced by vifmgr.cluscheck.hwerrors.

Severity

ALERT

Description

This message occurs when a network device reports a high number of observed hardware errors, such as CRC errors, length errors, alignment errors, or dropped frames.

Corrective Action

The errors could be originating from the specified port, a remote port, or a port on another component of the network. Check the statistics for both the port and the switch. Contact NetApp technical support for assistance and specific instructions.

Syslog Message

Port %s on node %s is reporting a high number of observed hardware errors, possibly CRC errors.

Parameters

portname (STRING): Name of the device that is reporting a high number of hardware errors.
nodename (STRING): Name of the node on which the port resides.

vifmgr.cluscheck.ctdpktloss

Severity

ALERT

Description

This message occurs when continued packet loss during the ping test is observed. Continued packet loss means multiple failures of the ping test persisted over several iterations of the test. The ping test tests the connectivity of a cluster logical interface (LIF) to all other cluster logical interfaces (LIFs).

Corrective Action

Ensure connectivity of the cluster LIFs. There are a number of issues that can cause this problem. Some things to check: - is the port connected to the correct network/switch - link light - switch configuration

Syslog Message

Continued packet loss when pinging from cluster lif %s (node %s) to cluster lif %s (node %s).

Parameters

src_vif (STRING): Name of the source cluster LIF.
src_node (STRING): Node name of the source cluster LIF.
dst_vif (STRING): Name of the desination cluster LIF.
dst_node (STRING): Node name of the destination cluster LIF.

vifmgr.cluscheck.droppedall

Severity

ALERT

Description

This message occurs when all packets of the ping test are dropped. The ping test tests the connectivity of a cluster logical interface (LIF) to all other cluster logical interfaces (LIFs).

Corrective Action

Ensure connectivity of the cluster LIFs. There are a number of issues that can cause this problem. Some things to check: - is the port connected to the correct network/switch - link light - switch configuration

Syslog Message

Total packet loss when pinging from cluster lif %s (node %s) to cluster lif %s (node %s).

Parameters

src_vif (STRING): Name of the source cluster LIF.
src_node (STRING): Node name of the source cluster LIF.
dst_vif (STRING): Name of the desination cluster LIF.
dst_node (STRING): Node name of the destination cluster LIF.

vifmgr.cluscheck.droppedlarge

Severity

ALERT

Description

This message occurs when all of the packets in the large packet ping test are dropped. This most likely suggests an MTU misconfiguration. The ping test tests the connectivity of a cluster logical interface (LIF) to all other cluster logical interfaces (LIFs).

Corrective Action

First, resolve any outstanding instances of vifmgr.cluscheck.mtumismatch. Second, verify that the cluster switches themselves are configured to support the same MTU as configured for the cluster LIFs.

Syslog Message

Partial packet loss when pinging from cluster lif %s (node %s) to cluster lif %s (node %s).

Parameters

src_vif (STRING): Name of the source cluster LIF.
src_node (STRING): Node name of the source cluster LIF.
dst_vif (STRING): Name of the desination cluster LIF.
dst_node (STRING): Node name of the destination cluster LIF.

vifmgr.cluscheck.droppednone

Severity

NOTICE

Description

This message occurs when where was some ping test failure that is now no longer occuring.

Corrective Action

(None).

Syslog Message

No packet loss when pinging from cluster lif %s (node %s) to cluster lif %s (node %s).

Parameters

src_vif (STRING): Name of the source cluster LIF.
src_node (STRING): Node name of the source cluster LIF.
dst_vif (STRING): Name of the desination cluster LIF.
dst_node (STRING): Node name of the destination cluster LIF.

vifmgr.cluscheck.hwerrors

Severity

ALERT

Description

This message occurs when a network device reports a high number of observed hardware errors, such as CRC errors, length errors, alignment errors, or dropped frames.

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Corrective Action

The errors could be originating from the specified port, a remote port, or a port on another component of the network. Check the statistics for both the port and the switch. Contact NetApp technical support for assistance and specific instructions.

Syslog Message

Port %s on node %s is reporting a high number (at least 1 per %d packets) of observed hardware errors (CRC, length, alignment, dropped).

Parameters

portname (STRING): Name of the device that is reporting a high number of hardware errors.
nodename (STRING): Name of the node on which the port resides.
threshold (INT): Threshold at which this message is logged, at least 1 error per threshold.

vifmgr.cluscheck.hwerrors.ifgrp

Severity

NOTICE

Description

This message occurs when a network device that is part of an interface group reports a high number of observed hardware errors, such as CRC errors (cyclic redundancy check), length errors, alignment errors, or dropped frames, and those errors are limited to a single network interface card (NIC) slot.

Corrective Action

The errors could be originating from the specified port, a remote port, or a port on another component of the network. Check the statistics for both the port and the switch. Contact NetApp technical support for assistance and specific instructions.

Syslog Message

Ifgrp member port %s on node %s is reporting a high number (at least one per %d packets) of hardware errors. No other NIC slot in the ifgrp is over threshold.

Parameters

portname (STRING): Name of the device that is reporting a high number of hardware errors.
nodename (STRING): Name of the node on which the port resides.
threshold (INT): An event is emitted when one or more errors occur for this number of packets.

vifmgr.cluscheck.l2ping

Severity

EMERGENCY

Description

This message occurs when the l2ping test fails. This test verifies L2 reachability between cluster ports. This condition typically results in loss of communication between the two nodes.

Corrective Action

Verify that the cable is plugged in properly to both the NIC and the switch, and that the switch is powered on. If these conditions are met and the cluster link remains down, contact NetApp technical support to investigate further.

Syslog Message

l2ping failure when pinging from cluster port %s (node %s) to cluster port %s (node %s).

Parameters

src_prt (STRING): Name of the source cluster port.
src_node (STRING): Node name of the source cluster port.
dst_port (STRING): Name of the desination cluster port.
dst_node (STRING): Node name of the destination cluster port.

vifmgr.cluscheck.lifdown

Severity

NOTICE

Description

This message occurs when the named cluster logical interface (LIF) is configured administratively "down".

Corrective Action

Use the "network interface modify" command to change the status-admin value of the LIF to "up".

Syslog Message

Cluster LIF %s is administratively "down".

Parameters

lif_name (STRING): Name of the LIF that is currently inactive.

vifmgr.cluscheck.lifup

Severity

NOTICE

Description

This message occurs when a cluster logical interface (LIF) was configured administratively "down" and is now configured administratively "up".

Corrective Action

(None).

Syslog Message

Cluster LIF %s is administratively "up".

Parameters

lif_name (STRING): Name of the LIF that is currently active.

vifmgr.cluscheck.mtumatch

Severity

ALERT

Description

This message occurs when the Maximum Transmition Unit (MTU) of a port assigned to a cluster logical interface (LIF) did not match the MTU of a port assigned to a different cluster logical interface but now does match.

Corrective Action

(None).

Syslog Message

MTU %s on cluster port %s (node %s) now matchs MTU %s on cluster port %s (node %s).

Parameters

src_mtu (STRING): MTU of the source cluster LIF port.
src_port (STRING): Name of the source cluster LIF port.
src_node (STRING): Name of the source node on which source cluster LIF port resides.
dst_mtu (STRING): MTU of the destination cluster LIF port.
dst_port (STRING): Name of the destination cluster LIF port.
dst_node (STRING): Name of the node on which destination cluster LIF port resides.

vifmgr.cluscheck.mtumismatch

Severity

ALERT

Description

This message occurs when the Maximum Transmition Unit (MTU) of a port assigned to a cluster logical interface (LIF) does not match the MTU of a port assigned to a different cluster logical interface. This condition may cause loss of packets between these two LIFs.

Corrective Action

Ensure the that MTUs of the LIFs are identical. The "network port show" command will display the port MTU settings. Any mismatched MTUs can modified from the "network port" subcommand.

Syslog Message

MTU %s on cluster port %s (node %s) does not match MTU %s on cluster port %s (node %s).

Parameters

src_mtu (STRING): MTU of the source cluster LIF port.
src_port (STRING): Name of the source cluster LIF port.
src_node (STRING): Name of the source node on which source cluster LIF port resides.
dst_mtu (STRING): MTU of the destination cluster LIF port.
dst_port (STRING): Name of the destination cluster LIF port.
dst_node (STRING): Name of the node on which destination cluster LIF port resides.

vifmgr.cluscheck.notassigned

Severity

ALERT

Description

This message occurs when the named cluster logical interface (LIF) is not assigned to any network port.

Corrective Action

Verify that the LIF's current port is configured administratively "up". Use the "network interface show" command to determine the current port of the LIF. Use the "network port show -fields up-admin" command to show the port's administrative state. Ensure that the network cabling connecting the remote network port is in place and secure. Ensure that the remote network port is configured administratively "up". If the port's link state is "up", attempt to migrate the cluster LIF to another cluster port. Use the "network port show" command to view the port's link state. If the current port is "up", use the "network interface migrate" command to migrate the LIF to another port.

Syslog Message

Cluster LIF %s (node %s) is not assigned to any port.

Parameters

lif_name (STRING): Name of the cluster LIF.
node_name (STRING): Name of the node on which the cluster LIF resides.

vifmgr.cluscheck.sameRmtDev

Severity

ERROR

Description

This message occurs when the home ports of the two cluster LIFs used for internal cluster replicated database (RDB) operations are connected to the same cluster switch. These LIFs should be connected to different cluster switches for optimal cluster resiliency.

Corrective Action

Use the "network port show -ipspace Cluster -fields remote-device-id" command to verify that the home ports of the specified cluster LIFs are connected to different cluster switches. If necessary, re-home one of the cluster LIFs to a port that is connected to the other switch. For help, search the NetApp knowledge base for "ONTAP Cluster interconnect management communication is improperly configured".

Syslog Message

Cluster LIFs "%s" and "%s" on node "%s" are used for RDB operations. The home ports of these LIFs are connected to the same cluster switch: "%s".

Parameters

clus1_lif (STRING): Name of a cluster LIF.
clus2_lif (STRING): Name of a cluster LIF.
node (STRING): Node name of the cluster LIFs.
remote_device (STRING): Name of the cluster switch.

vifmgr.clusterbd events

vifmgr.clusterBD.Partition

Severity

ERROR

Description

This message occurs when ONTAP detects that the cluster broadcast domain is partitioned; some local ports in the cluster broadcast domain do not have layer-2 connectivity to one another. Cluster LIFs could be at risk of connectivity issues.

Corrective Action

Check the network cabling of the ports in this broadcast domain to the network switch. Check the broadcast domain configuration on the storage system and the network port configuration on the switch for any misconfigurations. Run the "network port reachability show -detail" command to view which ports are unreachable. To view information about broadcast domains and ports on the cluster, run the "network port broadcast-domain show -instance" and "network port show -instance" commands.

Syslog Message

The cluster broadcast domain is partitioned on node "%s". LIFs hosted on the ports in this broadcast domain might be at risk of seeing connectivity issues.

Parameters

nodeName (STRING): Name of the node for which the local ports in the given broadcast domain are partitioned.

vifmgr.clusterlfoconf events

vifmgr.clusterLFOConf

Severity

NOTICE

Description

This message occurs when the failover policy and failover group for a cluster LIF are restored to their default values. It is necessary to restore the default values for these settings to ensure non-disruptive operation.

Corrective Action

(None).

Syslog Message

Setting failover settings for cluster LIF %s to avoid disruption.

Parameters

LIF (STRING): Name of the Cluster LIF that was modified.

vifmgr.dbase events

vifmgr.dbase.checkerror

Severity

ALERT

Description

This message occurs when the logical interface manager (VIFMgr) experiences an error while verifying

cluster database consistency. Some configured objects, such as logical interfaces (LIFs) might not be hosted properly as a result.

Corrective Action

Contact NetApp technical support and reference the "vifmgr.dbase.checkerror" error.

Syslog Message

VIFMgr experienced an error verifying cluster database consistency. Some LIFs might not be hosted properly as a result.

Parameters

(None).

vifmgr.displaced events

vifmgr.displaced.lifHomed

Severity

NOTICE

Description

This message occurs when the home port of a displaced logical interface (LIF) has been restored to its original home port.

Corrective Action

(None).

Syslog Message

Home port of displaced LIF %s (Vserver: %s, IP: %s) restored to node %s, port %s.

Parameters

vifName (STRING): Name of the LIF on which the home port is being updated.
vsrvId (STRING): ID of the Vserver on which the LIF resides.
vifIp (STRING): IP address of the LIF on which the home port is being updated.
toNode (STRING): Name of the node to which the LIF's home port is being updated.
toPort (STRING): Name of the port to which the LIF's home port is being updated.

vifmgr.extroute events

vifmgr.extRoute.addTable

Severity

NOTICE

Description

This message occurs when a new external route table is added successfully.

Corrective Action

(None).

Syslog Message

External route table %s was added successfully.

Parameters

table (STRING): Route table name.

vifmgr.extRoute.ipCreate

Severity

NOTICE

Description

This message occurs when a LIF was successfully added to or updated in external route tables.

Corrective Action

(None).

Syslog Message

LIF with IP address %s is mapped to external port ID %s in external route tables.

Parameters

vifip (STRING): IP address of the logical interface.
extportid (STRING): External port ID on which this LIF was created.

vifmgr.extRoute.ipDelete

Severity

NOTICE

Description

This message occurs when a LIF was successfully deleted from external route tables.

Corrective Action

(None).

Syslog Message

LIF with IP address %s was removed from external route tables.

Parameters

vifip (STRING): IP address of the logical interface.

vifmgr.extRoute.ipMove

Severity

NOTICE

Description

This message occurs when a LIF was successfully moved to a new external port ID in external route tables.

Corrective Action

(None).

Syslog Message

LIF with IP address %s was moved to external port ID %s in external route tables.

Parameters

vifip (STRING): IP address of the logical interface.
extportid (STRING): External port ID to which this LIF was moved.

vifmgr.extRoute.noAddTable

Severity

ERROR

Description

This message occurs when ONTAP fails to add a new external route table to the cloud network. As a result, IP packets routed to the subnet associated with the external route table will not be possible.

Corrective Action

1. Add the external route table manually using the tools provided by the cloud provider. 2. Check for cloud authorization and resource permission issues.

Syslog Message

Failed to add external route table %s (error %s).

Parameters

table (STRING): Route table name.
error (STRING): Error that is reported.

vifmgr.extRoute.noConn

Severity

ERROR

Description

This message occurs when the system cannot verify connectivity to the external mediator server.

Corrective Action

Use the "network route show -vserver Cluster" command to verify that a suitable route exists to the mediator. Ensure that the external network security configuration enables communication between all nodes and the mediator.

Syslog Message

Failed to verify connectivity with the mediator server, IP %s (error %s).

Parameters

mediatorip (STRING): IP address of the mediator.
error (STRING): Error that is reported.

vifmgr.extRoute.noIpCreate

Severity

ERROR

Description

This message occurs when a LIF cannot be added to or updated in external route tables.

Corrective Action

If an entry is found in the external route tables for the given IP address and external port ID, remove that entry from the tables using the tools provided by the cloud provider. Note that any subsequent LIF created with the same IP address will replace any entry remaining in the external route table.

Syslog Message

Failed to successfully map LIF with IP address %s to external port ID %s in external route tables (error %s).

Parameters

vifip (STRING): IP address of the logical interface.
extportid (STRING): External port ID on which this LIF was to be created.
error (STRING): Error that is reported.

vifmgr.extRoute.noIpDelete

Severity

ERROR

Description

This message occurs when ONTAP fails to update the external route tables maintained by the cloud provider to reflect a LIF removal. As a result, IP packets to the IP address might still be routed to the deleted external port ID.

Corrective Action

1. Remove the entry from the tables using the tools provided by the cloud provider if an entry is found in the external route tables for the given IP address and external port ID. 2. Verify connectivity, authentication, and permissions to the cloud endpoint using the tools provided by the cloud provider.

Syslog Message

Failed to remove LIF with IP address %s from external route tables (error %s).

Parameters

vifip (STRING): IP address of the logical interface.
error (STRING): Error that is reported.

vifmgr.extRoute.noIpMove

Severity

ERROR

Description

This message occurs when ONTAP fails to update the external route tables maintained by the cloud provider to reflect a LIF move. As a result, IP packets to the IP address might still be routed to the previously assigned external port ID.

Corrective Action

1. Remove the entry from the tables using the tools provided by the cloud provider if an entry is found in the external route tables for the given IP address and external port ID. 2. Verify connectivity, authentication and permissions to the cloud endpoint using the tools provided by the cloud provider. 3. Admin the status of the LIF associated with the IP down and up to force the IP movement. "network interface modify -vserver [x] -lif [xx] -status-admin down" "network interface modify -vserver [x] -lif [xx] -status-admin up"

Syslog Message

Failed to move LIF. Error: %s

Parameters

error (STRING): Error that is reported.

vifmgr.extRoute.noRmTable

Severity

NOTICE

Description

This message occurs when ONTAP fails to remove the external route table from the cloud network. As a result, IP packets routed to the subnet associated with the external route table might still be valid in the virtual private cloud.

Corrective Action

1. Remove the external route table manually using the tools provided by the cloud provider. 2. Check for cloud authorization and resource permission issues.

Syslog Message

Failed to remove external route table %s (error %s).

Parameters

table (STRING): Route table name.
error (STRING): Error that is reported.

vifmgr.extRoute.rmTable

Severity

NOTICE

Description

This message occurs when an external route table is removed.

Corrective Action

(None).

Syslog Message

External route table %s was removed successfully.

Parameters

table (STRING): Route table name.

vifmgr.gcp events

vifmgr.gcp.NlbdDown

Severity

ERROR

Description

This message occurs when the network load balancing listener becomes unresponsive. This event causes data LIFs to be moved to a healthier node.

Corrective Action

Reboot the node.

Syslog Message

The network load balancing listener is unresponsive.

Parameters

(None).

vifmgr.gcp.NlbdUp

Severity

NOTICE

Description

This message occurs when the network load balancing listener recovers after a period of unresponsiveness. If data LIFs assigned to this node have been configured to automatically revert to their home port, this will cause them to return to their home port.

Corrective Action

(None).

Syslog Message

The network load balancing listener has recovered after a period of unresponsiveness.

Parameters

(None).

vifmgr.hm events

vifmgr.hm.promoted

Severity

NOTICE

Description

This message occurs when a health monitor has been fully activated for an IPspace. A fully activated health monitor marks ports as unhealthy if the port fails the monitor's health check.

Corrective Action

(None).

Syslog Message

The %s has been promoted on IPspace %s.

Parameters

monitor (STRING): Health monitor name.
ipspace (STRING): IPspace name for which the health monitor has been promoted.

vifmgr.hv events

vifmgr.hv.nohostconfig

Severity

ALERT

Description

This message occurs when no Hypervisor host configuration is available. This is required by ONTAP®
software to monitor the health of the hypervisor uplinks.

Corrective Action

Verify the Hypervisor host configuration. Without it, ONTAP cannot monitor the health of the hypervisor
uplinks, preventing data LIFs from failing over if the uplink were to go down.

Syslog Message

The %s health monitor cannot access the Hypervisor host configuration.

Parameters

monitor (STRING): Health monitor name.

vifmgr.hv.nosnmpconfig

Severity

ALERT

Description

This message occurs when no Hypervisor SNMP configuration is available. This is required by ONTAP®
software to monitor the health of the hypervisor uplinks.

Corrective Action

Verify the Hypervisor SNMP configuration. Without it, ONTAP cannot monitor the health of the hypervisor
uplinks, preventing data LIFs from failing over if the uplink were to go down.

Syslog Message

The %s health monitor cannot access the required Hypervisor SNMP configuration.

Parameters

monitor (STRING): Health monitor name.

vifmgr.hv.nouplinkmapping

Severity

ALERT

Description

This message occurs when no Hypervisor uplink mapping is available for the specified port. This is required by ONTAP® software to monitor the health of the hypervisor uplinks.

Corrective Action

Verify the Hypervisor uplink mapping configuration. Without it, ONTAP cannot monitor the health of the hypervisor uplinks, preventing data LIFs from failing over if the uplink were to go down.

Syslog Message

The %s health monitor cannot access the Hypervisor uplink mapping configuration for node %s port %s.

Parameters

monitor (STRING): Health monitor name.
node (STRING): Name of the node.
port (STRING): Name of the port.

vifmgr.hv.nouplinkstatus

Severity

ERROR

Description

This message occurs when there is an error obtaining the Hypervisor uplink status for the specified port.

Corrective Action

Verify the Hypervisor's host and SNMP configuration.

Syslog Message

Unable to obtain the hypervisor uplink status for port %s with hypervisor uplinks %s.

Parameters

port (STRING): Name of the port.
uplinks (STRING): List of hypervisor uplinks associated with the port.

vifmgr.ifgrp events

vifmgr.ifgrp.invalidname

Severity

ERROR

Description

This message occurs when an interface group (ifgrp) is configured with an unsupported name. This ifgrp cannot be modified or destroyed using clustershell or Data ONTAP® management APIs.

Corrective Action

Special corrective action is necessary to remove this ifgrp; contact NetApp technical support for assistance.

Syslog Message

Ifgrp %s has an invalid name and cannot be modified or destroyed.

Parameters

ifgrp (STRING): Invalid name of the ifgrp.

vifmgr.ipspace events

vifmgr.ipspace.tooMany

Severity

EMERGENCY

Description

This message occurs when the system is over-provisioned with IPspaces, exceeding the maximum number allowed.The over-provisioned IPspaces might not be configured successfully in the stack. Any ports assigned to the unconfigured IPspace will fail to host IP addresses and support traffic. This limitation is checked whenever the node comes into quorum.

Corrective Action

Use the "network ipspace delete" command to remove unused IPspaces.

Syslog Message

There are %d custom IPspaces configured on the cluster, exceeding the maximum limit of %d.

Parameters

configNum (INT): Number of custom IPspaces configured.
maxNum (INT): Maximum number of custom IPspaces supported.

vifmgr.lif events

vifmgr.lif.foPolicyMod

Severity

NOTICE

Description

This message occurs when a LIF's failover policy has been modified.

Corrective Action

(None).

Syslog Message

LIF %s on Vserver %s (numeric ID: %d, IP address: %s) has been updated to use failover policy %s."

Parameters

lif_name (STRING): Name of the affected LIF.
vserver_name (STRING): Vserver associated with the affected LIF.
lif_id (INT): Numeric identifier for the affected LIF.
lif_address (STRING): IP address for the affected LIF.
new_policy (STRING): Failover policy that is now associated with this LIF.
old_policy (STRING): Failover policy that was previously associated with this LIF.

vifmgr.lif.fwpolicy.update

Severity

NOTICE

Description

This message occurs when a LIF (logical interface) firewall policy value is deprecated and automatically assigned a new value based on its role.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), firewall policy "%s" is deprecated and updated to a new value "%s" based on the LIF's role.

Parameters

vifname (STRING): Name of the LIF whose firewall policy value is updated.
vsrvid (STRING): Identifier of the Vserver on which this LIF resides.
oldpolicy (STRING): LIF firewall policy value before change.
newpolicy (STRING): LIF firewall policy value after change.

vifmgr.lif.invalidPort

Severity

ERROR

Description

This message occurs when a LIF's current or home port are not present in RDB.

Corrective Action

Use the command in advanced mode "network interface show" making sure to specify the parameter -numeric-id with the identifier specified in the message. With the LIF name and vserver from the output of the previous command, use the "network interface modify" command to set the home port and current port to ports that are displayed by the "network ports show" command.

Syslog Message

LIF %d has a home port identifer or current port identifier that is not present in RDB.

Parameters

lif (INT): Identifier of LIF with invalid port.

vifmgr.lif.invalidSubnet

Severity

ERROR

Description

This message occurs when a LIF's configuration conflicts with that of its subnet. It is caused by an inconsistency in the configuration of the LIF.

Corrective Action

To identify the LIF, use the advanced mode command "network interface show" setting the numeric-id parameter to that of the LIF in the message. If the subnet is not set correctly, assign the subnet with the "network interface modify" command specifying an existing subnet that contains the ranges for the LIF's address. If the subnet does not include a range with the address of the LIF, add a range with the "network modify subnet" command making sure to specify the LIF and the force-update-lif-associations parameters.

Syslog Message

LIF %d has a configuration that does not match its subnet.

Parameters

lif (INT): Identifier of LIF with invalid subnet.

vifmgr.lif.invFailoverGroup

Severity

ERROR

Description

This message occurs when a LIF has a failover group with the wrong virtual server or ipspace. If an event occurs where the LIF needs to fail off the current port the LIF might not be hosted.

Corrective Action

To identify the LIF, use the advanced mode command "network interface show" setting the numeric-id parameter to that of the LIF in the message. Next, use the "network interface modify" command to associate the LIF with an existing failover group or a new failover group consisting of the desired ports.

Syslog Message

The failover group %s for LIF %d is invalid.

Parameters

failovergroup (STRING): Invalid failover group name.
lif (INT): Identifier of the LIF with an invalid failover group.

vifmgr.lif.invPortIPs

Severity

ERROR

Description

This message occurs when a port and a LIF currently on that port are in different IPspaces. It is caused by an inconsistency in the configuration of the LIF.

Corrective Action

Use the command in advanced mode "network interface show" making sure to specify the paramter -numeric-id with the identifier specified in the message. If the ipspace assigned to the port is correct, modify the LIF to use a home port in the same ipspace as its containing virtual server. If the ipspace of the port is incorrect, change it to match the LIF. If both are correct the LIF's home port, current port, and failover group have to be reassigned to ones sharing the LIF's ipspace.

Syslog Message

LIF %d and Port %s:%s are in different IPspaces.

Parameters

lif (INT): Identifier of LIF with mismatched Ipspace.
node (STRING): Name of node that port resides on.
port (STRING): Name of port with mismatched Ipspace.

vifmgr.lif.orphanedFwPolicy

Severity

ERROR

Description

This message occurs when the virtual server for a firewall policy does not exist.

Corrective Action

Use the command in advanced mode "network interface show" making sure to specify the paramter -numeric-id with the identifier specified in the message. Then use the command "network interface modify" to assign a new firewall policy with the information from the show command.

Syslog Message

The firewall policy %s assigned to LIF %d does not exist or has a different virtual server identifier than the LIF.

Parameters

policy (STRING): Firewall policy identifier which has an invalid virtual server.
lif (INT): Firewall policy identifier which has an invalid virtual server.

vifmgr.lif.protocolMod

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) is temporarily brought offline to add or remove data protocols. Data service will be briefly interrupted while this change is applied, and any existing network connection will be reset.

Corrective Action

(None).

Syslog Message

LIF %s on Vserver %s (numeric ID: %d, IP address: %s) is being temporarily brought offline to add or remove data protocols.

Parameters

    lif_name (STRING): Name of the affected LIF.
    vserver_name (STRING): Vserver associated with the affected LIF.
    lif_id (INT): Numeric identifier for the affected LIF.
    lif_address (STRING): IP address for the affected LIF.

vifmgr.lif.sp.conflict

Severity

    ALERT

Description

    This message occurs when a logical interface (LIF) in the default IPspace is configured with an address that conflicts with the Service Processor (SP) or the Baseboard Management Controller (BMC).

Corrective Action

    Use the "network interface modify" command to assign a different IP address to the affected logical network interface (LIF). Be sure to assign a new address that does not conflict with other hosts in the default IPspace.

Syslog Message

    LIF "%s" on Vserver "%s" with IP address "%s" in the default IPspace is in use by the SP/BMC.

Parameters

    vifName (STRING): Name of the LIF that is being moved.
    vsrvName (STRING): ID of the virtual server on which the LIF resides.
    vifip (STRING): IP address of the affected LIF.

vifmgr.lif.subnetMisconfig

Severity

    ERROR

Description

    This message occurs when LIFs in the same subnet are configured on ports in multiple broadcast domains. This can cause routing issues due to reachability to and beyond the gateway.

Corrective Action

    To identify the misconfigured LIFs use the command "network interface show -address -netmask -fields broadcast-domain". LIFs in the same subnet should be configured on ports that are in the same broadcast domain.

Syslog Message

    LIFs in subnet %s of IPspace "%s" are configured on ports in multiple broadcast domains: %s

Parameters

    subnetname (STRING): Subnet name.
    ipspacename (STRING): IPspace name.
    bdname (STRING): List of broadcast domains.

vifmgr.lif.svcPolicyMod

Severity

NOTICE

Description

This message occurs when a LIF's service policy has been modified.

Corrective Action

(None).

Syslog Message

LIF %s on Vserver %s (numeric ID: %d, IP address: %s) has been updated to use service policy %s."

Parameters

lif_name (STRING): Name of the affected LIF.
vserver_name (STRING): Vserver associated with the affected LIF.
lif_id (INT): Numeric identifier for the affected LIF.
lif_address (STRING): IP address for the affected LIF.
new_policy (STRING): Service policy that is now associated with this LIF.
old_policy (STRING): Service policy that was previously associated with this LIF.

vifmgr.lifadded events

vifmgr.lifadded.byadmin

Severity

NOTICE

Description

This message occurs when an administrator action causes a logical interface (LIF) IP address to be added.

Corrective Action

(None).

Syslog Message

LIF %s with ID %s (on virtual server %s), IP address %s, was added.

Parameters

vifname (STRING): Name of the LIF that was added.
vifid (STRING): Unique ID assigned to the LIF.
vsrvid (STRING): Name of the virtual server identifier on which the LIF resides.
vifip (STRING): LIF IP address that was added.

vifmgr.lifbeinghosted events

vifmgr.lifbeinghosted

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) IP address that was previously marked as down because no eligible ports could host this LIF is now being hosted. Data access through this LIF is again up.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, previously marked as down, is now up and serving data on node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that is now being hosted.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is now being hosted.
tonode (STRING): Name of the node where the LIF is currently being hosted.
toport (STRING): Name of the port where the LIF is currently being hosted.

vifmgr.lifbeingremoved events

vifmgr.lifBeingRemoved

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) IP address is being removed or moved from the node. Data access through this LIF will be temporarily down until the LIF is re-hosted on another node.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being removed from node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that is being removed.
vsrvid (STRING): Virtual server identifier on which this LIF resides.
vifip (STRING): The IP address that is being removed.
tonode (STRING): Name of the node on which the LIF had been hosted.
toport (STRING): Name of the port on which the LIF had been hosted.

vifmgr.lifcapacity events

vifmgr.lifCapacity

Severity

NOTICE

Description

This message occurs when the system informs the administrator of the number of Logical Interfaces (LIFs) supported by the node.

Corrective Action

(None).

Syslog Message

Node %s is capable of hosting %s data LIFs.

Parameters

nodeName (STRING): Name of the node.
numLifs (STRING): Number of data LIFs that can be configured on the node.

vifmgr.lifdeleted events

vifmgr.lifdeleted.byadmin

Severity

NOTICE

Description

This message occurs when an administrator action causes a logical interface (LIF) IP address to be deleted.

Corrective Action

(None).

Syslog Message

LIF %s with ID %s (on virtual server %s), IP address %s, was deleted.

Parameters

vifname (STRING): Name of the LIF that was deleted.
vifid (STRING): Unique ID assigned to the LIF.
vsrvid (STRING): Name of the virtual server identifier on which the LIF resided.
vifip (STRING): LIF IP address that was deleted.

vifmgr.lifdown events

vifmgr.lifdown.noports

Severity

ALERT

Description

This message occurs when a logical interface (LIF) IP address cannot serve data because there are no eligible ports on which to host the LIF. Thus, this LIF is being marked as down. This means that data access through this LIF will be down until the system can rehost this LIF on an eligible port that becomes available.

Corrective Action

This LIF IP address is down because there are no eligible ports capable of serving data for this LIF. To bring this LIF up so that it can serve data, enable one or more eligible ports that can host this LIF. To find the list of eligible ports for this LIF, examine the failover rules for this LIF. In addition to the ports found there, you could add a new port to the failover rule for that LIF.

Syslog Message

LIF %s (on virtual server %s), IP address %s, currently cannot be hosted on node %s, port %s, or any of its failover targets, and is being marked as down.

Parameters

vifname (STRING): Name of the LIF that is marked as down.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is marked as down.
tonode (STRING): Name of the node to which the LIF currently cannot be hosted.
toport (STRING): Name of the port to which the LIF currently cannot be hosted.

vifmgr.lifidoutofsync events

vifmgr.lifIdOutOfSync

Severity

ERROR

Description

This message occurs when a Logical Interface (LIF) is configured in the Logical Interface manager (VIFMgr) but is not visible in the user interface."

Corrective Action

Using information from the message, use the "network interface ids create" diag privilege command to create the ID.

Syslog Message

LIF %s with ID %s (on virtual server %s), IP address %s, is configured in the VIFMgr but is not visible in the user interface.

Parameters

vifname (STRING): Name of the invisible LIF as it exists in the VIFMgr.
vifid (STRING): Unique ID of the invisible LIF as it exists in VIFMgr.
vsrvid (STRING): ID of the virtual server on which the LIF resides.
vifip (STRING): IP address of the invisible LIF as it exists in the VIFMgr.

vifmgr.lifmove events

vifmgr.lifmove.blocked

Severity

NOTICE

2674

Description

This message occurs when an attempt to move a logical interface (LIF) IP address to another node/port due to a load-balance event has failed because the LIF has active connections which can not be safely migrated.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, was blocked when being moved to node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that is being moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is being moved.
tonode (STRING): Name of the node to where the LIF is moving.
toport (STRING): Name of the port to where the LIF is moving.

vifmgr.lifmoved events

vifmgr.lifmoved.byadmin

Severity

NOTICE

Description

This message occurs when an administrator action causes a logical interface (LIF) IP address to move to another node/port.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being moved to node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that is being moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is being moved.
tonode (STRING): Name of the node to where the LIF is moving.
toport (STRING): Name of the port to where the LIF is moving.

vifmgr.lifmoved.bylb

Severity

NOTICE

Description

This message occurs when an attempt is made to move a logical interface (LIF) IP address to another node/port due to a load-balance event.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being moved to node %s, port %s due to an LB event.

Parameters

vifname (STRING): Name of the LIF that is being moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is being moved.
tonode (STRING): Name of the node to where the LIF is moving.
toport (STRING): Name of the port to where the LIF is moving.

vifmgr.lifmoved.linkdown

Severity

NOTICE

Description

This message occurs when an attempt was made to move a logical interface (LIF) IP address to another node/port due to a link down event.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being moved to node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that is being moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is being moved.
tonode (STRING): Name of the node to where the LIF is moving.
toport (STRING): Name of the port to where the LIF is moving.

vifmgr.lifmoved.nodedown

Severity

NOTICE

Description

This message occurs when an attempt was made to move a logical interface (LIF) IP address to another node/port due to a node down event.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being moved to node %s, port %s.

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Parameters

> **vifname** (STRING): Name of the LIF that is being moved.
> **vsrvid** (STRING): Name of the virtual server identifier on which this LIF resides.
> **vifip** (STRING): The logical interface's IP address that is being moved.
> **tonode** (STRING): Name of the node to where the LIF is moving.
> **toport** (STRING): Name of the port to where the LIF is moving.

vifmgr.lifondegport events

vifmgr.lifOnDegPort.noPorts

Severity

> ALERT

Description

> This message occurs when an attempt to move a logical interface (LIF) currently hosted on a port with degraded health status to a healthy port fails because there are no healthy ports in the LIF's failover group.

Corrective Action

> Add ports to the broadcast domain or failover group used by the affected LIF. Use the "network interface show -failover" command to review the currently assigned failover targets for each LIF.

Syslog Message

> LIF %s (on virtual server %s), IP address %s, is currently hosted on node %s, port %s, whose health status is degraded.

Parameters

> **vifName** (STRING): Name of the LIF that is hosted on the port with degraded health status.
> **vsrvId** (STRING): ID of the virtual server on which the LIF resides.
> **vifIp** (STRING): IP address of the LIF that is hosted on the port with degraded health status.
> **node** (STRING): Name of the node on which the degraded port resides.
> **port** (STRING): Name of the port with degraded health status.

vifmgr.lifs events

vifmgr.lifs.clusterlimit

Severity

> ERROR

Description

> This message occurs when the total number of logical interfaces (LIFs) exceeds the supported per-cluster limit. To ensure system stability, the total number of IP data LIFs should be kept at or below this limit.

Corrective Action

> Use the "network interface show -role data" command to review existing LIFs, and use the "network interface delete" command to remove enough LIFs to meet the cluster maximum. To facilitate this process, you can display the current number of LIFs by using the "network interface capacity show" command.

Syslog Message

The total number of data LIFs in this cluster (%u) exceeds the supported limit of %u.

Parameters

numLifs (INT): The number of IP data LIFs present in this cluster.
lifLimit (INT): The maximum number of supported LIFs for this cluster.

vifmgr.lifs.lowredundancy

Severity

ALERT

Description

This message occurs when one or more logical interfaces (LIFs) are configured to use a failover policy that implies failover to a specific set of nodes but does not have available failover targets on enough of those nodes. If the specified home node is offline or unavailable, all affected LIFs will be operationally down and unable to serve any data.

Corrective Action

Add additional ports to the broadcast domains or failover groups used by the affected LIFs, or modify each LIF's failover policy to include one or more nodes with available failover targets. For example, the "broadcast-domain-wide" failover policy will consider all failover targets in a LIF's failover group. Use the "network interface show -failover" command to review the currently assigned failover targets for each LIF.

Syslog Message

Insufficient redundancy in the failover configuration for %u LIFs assigned to node "%s". LIFs: %s

Parameters

lifcount (INT): Number of affected LIFs.
homenode (STRING): Home node of the affected LIFs.
liflist (STRING): List of the first several affected LIFs.

vifmgr.lifs.noredundancy

Severity

ALERT

Description

This message occurs when one or more logical interfaces (LIFs) are configured to use a failover policy that implies failover to one or more ports but have no failover targets beyond their home ports. If any affected home port or home node is offline or unavailable, the corresponding LIFs will be operationally down and unable to serve data.

Corrective Action

Add additional ports to the broadcast domains or failover groups used by the affected LIFs, or modify each LIF's failover policy to include one or more nodes with available failover targets. For example, the "broadcast-domain-wide" failover policy will consider all failover targets in a LIF's failover group. Use the "network interface show -failover" command to review the currently assigned failover targets for each LIF. If the intent is to never fail over the LIF to any other failover targets, set the failover-policy for the LIF to 'disabled' to prevent this alert in the future. For additional information about configuring LIF failover targets, search the NetApp® support site for TR-4182.

Syslog Message

No redundancy in the failover configuration for %u LIFs assigned to node "%s". LIFs: %s

Parameters

lifcount (INT): Number of affected LIFs.
homenode (STRING): Home node of the affected LIFs.
liflist (STRING): List of the first several affected LIFs.

vifmgr.lifs.overcapacity

Severity

ALERT

Description

This message occurs when logical interfaces (LIFs) have been over-provisioned. As a result, some LIFs might report a status of "down" during a node outage, even if the LIF is configured to have a remote failover target.

Corrective Action

Removing LIFs from the system, adjusting the failover settings of some LIFs, and reconfiguring failover groups are all possible options for correcting the situation. Use the "network interface check failover show" command to gather more detailed information about the over-provisioning.

Syslog Message

Node with failover targets over-provisioned: %u LIFs could be marked "down" during node outage.

Parameters

overamount (INT): Number of LIFs that might be displayed as "down".

vifmgr.lifsuccessfullymoved events

vifmgr.lifsuccessfullymoved

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) IP address was successfully moved to another node/port.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is now hosted on node %s, port %s.

Parameters

vifname (STRING): Name of the LIF that was moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that was moved.
tonode (STRING): Name of the node to which the LIF was moved.

toport (STRING): Name of the port to which the LIF was moved.

vifmgr.migratelifs events

vifmgr.migrateLifs.nlbdDown

Severity

ERROR

Description

This message occurs when the network load balancing listener is not responding to probes over a node management LIF, and cluster-scoped LIFs with the same current port have been migrated elsewhere.

Corrective Action

Use the "network interface show" command to verify that the node managment LIF in question is operational. If the LIF is operational, contact NetApp technical support for specific instructions.

Syslog Message

The network load balancing listener is not responding via LIF "%s" on Vserver "%s" with current port "%s". As a result, the load balancing LIFs have been migrated elsewhere.

Parameters

lif (STRING): LIF name.
vserver_name (STRING): Vserver name.
port (STRING): Network port name

vifmgr.migrateLifs.nlbdUp

Severity

NOTICE

Description

This message occurs when the network load balancing listener starts responding to probes over a node management LIF. The network port where the node management LIF is located is now available for use by load-balanced LIFs.

Corrective Action

(None).

Syslog Message

The network load balancing listener has started responding via LIF "%s" on Vserver "%s" with current port "%s".

Parameters

lif (STRING): LIF name.
vserver_name (STRING): Vserver name.
port (STRING): Network port name.

vifmgr.port events

vifmgr.port.discovered

Severity

NOTICE

Description

This message occurs when a physical network port has been discovered.

Corrective Action

(None).

Syslog Message

Physical network port %s (node %s) has been discovered.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.

vifmgr.port.ifgrpAddPort

Severity

NOTICE

Description

This message occurs when an administrative action adds a port to an interface group.

Corrective Action

(None).

Syslog Message

Port %s, node %s has been added to ifgrp %s.

Parameters

portName (STRING): Name of the port that was added to an interface group.
nodeName (STRING): Name of the node on which the port resides.
ifgrpName (STRING): Name of the interface group to which the port was added.

vifmgr.port.ifgrpCreated

Severity

NOTICE

Description

This message occurs when an administrative action creates an interface group.

Corrective Action

(None).

Syslog Message

Ifgrp %s, node %s has been created.

Parameters

ifgrpName (STRING): Name of the interface group that was created.
nodeName (STRING): Name of the node on which the interface group resides.

vifmgr.port.ifgrpDeleted

Severity

NOTICE

Description

This message occurs when an administrative action deletes an interface group.

Corrective Action

(None).

Syslog Message

Ifgrp %s, on node %s has been deleted.

Parameters

ifgrpName (STRING): Name of the interface group that was deleted.
nodeName (STRING): Name of the node on which the ifgrp was deleted.

vifmgr.port.ifgrpRemovePort

Severity

NOTICE

Description

This message occurs when an administrative action removes a port from an interface group.

Corrective Action

(None).

Syslog Message

Port %s, node %s has been removed from ifgrp %s.

Parameters

portName (STRING): Name of the port that was removed from an interface group.
nodeName (STRING): Name of the node on which the port resides.
ifgrpName (STRING): Name of the interface group from which the port was removed.

vifmgr.port.mismatchState

Severity

ERROR

Description

This message occurs when an administratively down port is not operationally down.

Corrective Action

The operational state of the port does not match the state in the ports configuration. Use the advanced mode command "network port modify" command specifying the desired state by setting the paramter -up -admin" to true if the desired state is up and to false if the desired state is down.

Syslog Message

port %s is administratively down and operationally up.

Parameters

port (STRING): Name of port that should be operationally down.

vifmgr.port.monitor.failed

Severity

ERROR

Description

This message occurs when a port fails a health check.

Corrective Action

Check the network cables that are connected to the specified port for any loose connections. Ensure that the physical Ethernet NIC is functioning properly.

Syslog Message

The "%s" health check for port %s (node %s) has failed. The port is operating in a degraded state.

Parameters

healthCheckType (STRING): The type of health check that this port failed. The possible health checks are Frequent Link Flapping and Insufficient L2 Reachability.
portName (STRING): Name of the port that failed the health check.
nodeName (STRING): Name of the node on which the port resides.

vifmgr.port.monitor.passed

Severity

NOTICE

Description

This message occurs when a port successfully passes a health check.

Corrective Action

(None).

Syslog Message

The "%s" health check for port %s (node %s) has passed.

Parameters

healthCheckType (STRING): The type of health check that this port passed. The possible health checks

are Frequent Link Flapping and Insufficient L2 Reachability.
portName (STRING): Name of the port that passed the health check.
nodeName (STRING): Name of the node on which the port resides.

vifmgr.port.mtumismatch

Severity

ERROR

Description

This message occurs when the administrator modifies a cluster port's MTU while the node is out of quorum to a value other than the broadcast domain MTU, and then the node rejoins quorum.

Corrective Action

Change the port's MTU by using the "network port modify" command, or change the broadcast domain's MTU by using the "network port broadcast-domain modify" command.

Syslog Message

The MTU of port %s (%d) does not match the MTU of broadcast domain %s (%d).

Parameters

port (STRING): Name of the port.
portmtu (INT): MTU of the port.
broadcast_domain (STRING): Name of the broadcast domain.
bdmtu (INT): MTU of the broadcast domain.

vifmgr.port.restored

Severity

NOTICE

Description

This message occurs when configuration data for a network port is restored, typically for a network port that no longer exists or was partially removed previously. No action is required unless you were intentionally intending to remove the network port.

Corrective Action

If you intentionally intended to remove the port, use the (privilege: advanced) "cluster ring show -unitname vifmgr" command to confirm that the network management component is online. If the component is online, use either the "network port ifgrp delete" or "network port vlan delete" command to remove the port again.

Syslog Message

Configuration data for port %s in IPspace "%s" has been restored.

Parameters

port (STRING): Name of the affected port.
ipspace (STRING): Name of the IPspace to which the port is assigned.

vifmgr.port.shareBd

Severity

ERROR

Description

This message occurs when an administrator attempts to move a network port out of IPspace "Cluster", and that port is being used by the back-end HA or DR interconnect. Ports used for either the HA or DR interconnect must remain in IPspace "Cluster" and must be wired to either the cluster switch or directly to the associated HA partner, for two-node switchless clusters.

Corrective Action

If the port has been added to a new broadcast domain, use the "network port broadcast-domain remove-ports" command to remove the port's broadcast domain association. When the port is no longer assigned to a broadcast domain, use the "network port broadcast-domain add-ports" command to add it to broadcast domain "Cluster" in IPspace "Cluster".

Syslog Message

Port %s is shared with the HA or DR interconnect but has been moved from broadcast domain "Cluster" to broadcast domain "%s" of IPspace "%s".

Parameters

port (STRING): Name of the affected port.
broadcast_domain (STRING): Name of the broadcast domain to which the port is assigned.
ipspace (STRING): Name of the IPspace to which the port is assigned.

vifmgr.port.shareIpspace

Severity

ERROR

Description

This message occurs when a cluster port that is shared with either the back-end HA or DR interconnect is assigned to an IPspace other than "Cluster", which is required for all shared ports. This condition can be encountered when a hardware refresh introduces a new platform that includes ports shared with either the HA or DR interconnect.

Corrective Action

If necessary, use the "network port broadcast-domain remove-ports" command to remove the broadcast domain association from the port. After the port is no longer assigned to a broadcast domain, use the "network port broadcast-domain add-ports" command to add the port to broadcast domain "Cluster" in IPspace "Cluster".

Syslog Message

Port %s in broadcast domain "%s" of IPspace "%s" is shared with the HA or DR interconnect, but is not assigned to IPspace "Cluster".

Parameters

port (STRING): Name of the affected port.
broadcast_domain (STRING): Name of the broadcast domain to which the port is assigned.
ipspace (STRING): Name of the IPspace to which the port is assigned.

vifmgr.port.shareMtu

Severity

ERROR

Description

This message occurs when a cluster port shared with either the back-end HA or DR interconnect is found to be using an MTU other than 9000 bytes. For optimal performance, ports shared with the back-end interconnect should use an MTU of 9000 bytes. This condition can occur when a platform using network ports shared with either the back-end HA or DR interconnect is used in a mixed-version cluster, where one or more nodes still allows changes to the MTU setting for broadcast domain "Cluster".

Corrective Action

If the port is currently assigned to broadcast domain "Cluster", use the "network port broadcast-domain modify" command to update broadcast domain "Cluster" to use an MTU of 9000 bytes.

Syslog Message

Port %s in broadcast domain "%s" of IPspace "%s" is shared with the HA or DR interconnect, but has an MTU of %d bytes instead of 9000 bytes.

Parameters

port (STRING): Name of the affected port.
broadcast_domain (STRING): Name of the broadcast domain to which the port is assigned.
ipspace (STRING): Name of the IPspace to which the port is assigned.
mtu (INT): MTU setting of the port.

vifmgr.port.sharingDisabled

Severity

NOTICE

Description

This message occurs when port sharing is disabled for a network port. This transition occurs when a network port is no longer available to be shared with the back-end HA or DR interconnect.

Corrective Action

(None).

Syslog Message

Sharing is disabled for port %s.

Parameters

port (STRING): Name of the affected port.

vifmgr.port.sharingEnabled

Severity

NOTICE

Description

This message occurs when port sharing is enabled for a network port. Enabling port sharing facilitates bandwidth sharing with the back-end (high availability) HA and DR interconnect, which use the same

physical port.

Corrective Action

(None).

Syslog Message

Sharing is enabled for port %s.

Parameters

port (STRING): Name of the affected port.

vifmgr.port.sharingError

Severity

ERROR

Description

This message occurs when an error is encountered while attempting to enable or disable sharing of a network port. If the port is being shared with the back-end HA or DR interconnect on this platform, those components might not be safely isolated from LIFs configured on the port. High utilization by either HA or DR traffic might negatively impact latency and bandwidth available to the cluster network.

Corrective Action

Use the "network port show" command to display the current link status of the affected network port. If the port is down, check any associated cabling and the status of the network switch it is connected to. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Port "%s" could not be updated to the requested sharing state. Error: %s.

Parameters

port (STRING): Name of the affected port.
error (STRING): Description of the error.

vifmgr.port.vipCreated

Severity

NOTICE

Description

This message occurs when an administrative action causes a VIP port to be created.

Corrective Action

(None).

Syslog Message

VIP port %s on node %s in IPspace %s has been created.

Parameters

vipPortName (STRING): Name of the VIP port that was created.
nodeName (STRING): Name of the node on which the VIP port resides.
ipspace (STRING): Name of the IPspace where the VIP port resides.

vifmgr.port.vipDeleted

Severity

NOTICE

Description

This message occurs when an administrative action causes a VIP port to be deleted.

Corrective Action

(None).

Syslog Message

VIP port %s on node %s in IPspace %s has been deleted.

Parameters

vipPortName (STRING): Name of the VIP port that was deleted.
nodeName (STRING): Name of the node from which the VIP port was deleted.
ipspace (STRING): Name of the IPspace where the VIP port resides.

vifmgr.port.vlanCreated

Severity

NOTICE

Description

This message occurs when an administrative action creates a VLAN on a port.

Corrective Action

(None).

Syslog Message

Vlan %s is created on port %s, node %s.

Parameters

vlanName (STRING): Name of the VLAN created on the port.
portName (STRING): Name of the port on which the VLAN was created.
nodeName (STRING): Name of the node on which the port resides.

vifmgr.port.vlanDeleted

Severity

NOTICE

Description

This message occurs when an administrative action deletes a VLAN from a port.

Corrective Action

(None).

Syslog Message

Vlan %s is deleted from port %s, node %s.

Parameters

    vlanName (STRING): Name of the VLAN deleted from the port.
    portName (STRING): Name of the port from which the VLAN was deleted.
    nodeName (STRING): Name of the node on which the port resides.

vifmgr.portdeg events

vifmgr.portDeg.ifgrpAdded

Severity

    NOTICE

Description

    This message occurs when an administrative action adds a port with a degraded health status to an interface group.

Corrective Action

    (None).

Syslog Message

    Port %s, node %s whose health-status is degraded has been added to ifgrp %s.

Parameters

    portName (STRING): Name of the degraded port that was added to an interface group.
    nodeName (STRING): Name of the node on which the degraded port resides.
    ifgrpName (STRING): Name of the interface group to which the degraded port was added.

vifmgr.portDeg.lifHosted

Severity

    NOTICE

Description

    This message occurs when an administrative action hosts a logical interface (LIF) on a port with a degraded health status.

Corrective Action

    (None).

Syslog Message

    LIF %s (on virtual server %s) is hosted on a degraded port %s, node %s.

Parameters

    vifName (STRING): Name of the hosted LIF.
    vsrvid (STRING): Name of the virtual server identifier that uses the LIF.
    portName (STRING): Name of the degraded port that hosts the LIF.
    nodeName (STRING): Name of the node on which the degraded port resides.

vifmgr.portDeg.lifMoved

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) is moved from a port with degraded health status to a healthy port.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, is being moved to node %s, port %s from node %s, port %s because the port's health status is in a degraded state.

Parameters

vifName (STRING): Name of the LIF that is being moved.
vsrvId (STRING): ID of the virtual server on which the LIF resides.
vifIp (STRING): The IP address of the LIF that is being moved.
toNode (STRING): Name of the node to which the LIF is moving.
toPort (STRING): Name of the port to which the LIF is moving.
fromNode (STRING): Name of the node on which the LIF is currently hosted.
fromPort (STRING): Name of the port on which the LIF is currently hosted.

vifmgr.portDeg.vlanCreated

Severity

NOTICE

Description

This message occurs when an administrative action creates a VLAN on a port with a degraded health status.

Corrective Action

(None).

Syslog Message

Vlan %s is created on a degraded port %s, node %s.

Parameters

vlanName (STRING): Name of the VLAN created on the degraded port.
portName (STRING): Name of the degraded port on which the VLAN was created.
nodeName (STRING): Name of the node on which the degraded port resides.

vifmgr.portdown events

vifmgr.portdown

Severity

NOTICE

Description

This message occurs when a link down event was received on a network port. Data access through this physical port is down.

Corrective Action

(None).

Syslog Message

A link down event was received on node %s, port %s.

Parameters

nodename (STRING): Name of the node on which the affected port resides.
portname (STRING): Name of the affected port.

vifmgr.porthealthy events

vifmgr.portHealthy

Severity

NOTICE

Description

This message occurs when port health status changes from degraded to healthy.

Corrective Action

(None).

Syslog Message

The health status of port %s (node %s) has changed from degraded to healthy. This port can now be used for hosting LIFs.

Parameters

portName (STRING): Name of the port whose health status changed from degraded to healthy.
nodeName (STRING): Name of the node on which the port resides.

vifmgr.portowner events

vifmgr.portowner.err

Severity

ERROR

Description

This message occurs when a port receives a configuration error.

Corrective Action

Remove any ports from the bootarg.bsdportname LOADER variable that are of a role other than node-mgmt by resetting the bootarg.bsdportname under the LOADER prompt: LOADER> setenv bootarg.bsdportname "port-name (node-mgmt port only)" Then reboot the node.

Syslog Message

Node %s port %s has an invalid port role type. Only node-mgmt network ports can be assigned to use a different driver.

Parameters

nodename (STRING): Name of the node on which the affected port resides.
portname (STRING): Name of the affected port.

vifmgr.portremoved events

vifmgr.portRemoved

Severity

NOTICE

Description

This message occurs when a port is removed because it no longer exists.

Corrective Action

(None).

Syslog Message

Port %s on node %s has been removed because it no longer exists.

Parameters

port (STRING): Name of the nonexistent port.
node (STRING): Name of the node on which the nonexistent port used to reside.

vifmgr.portRemoved.lifHomed

Severity

NOTICE

Description

This message occurs when a logical interface's (LIF's) home port is updated because its previous home port has been removed from its broadcast domain.

Corrective Action

(None).

Syslog Message

Home port of LIF %s (Vserver %s), IP addr %s updated to node %s port %s from node %s port %s: port removed from broadcast domain.

Parameters

vifName (STRING): Name of the LIF on which the home port is being updated.
vsrvId (STRING): ID of the virtual server on which the LIF resides.
vifIp (STRING): IP address of the LIF on which the home port is being updated.
toNode (STRING): Name of the node to which the LIF's home port is being updated.
toPort (STRING): Name of the port to which the LIF's home port is being updated.
fromNode (STRING): Name of the node from which the LIF's home port is being updated.
fromPort (STRING): Name of the port from which the LIF's home port is being updated.

vifmgr.portRemoved.lifMoved

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) is moved from a port that has been removed from its broadcast domain.

Corrective Action

(None).

Syslog Message

LIF %s (Vserver %s), IP addr %s moving to node %s port %s from node %s port %s: port removed from broadcast domain.

Parameters

vifName (STRING): Name of the LIF that is being moved.
vsrvId (STRING): ID of the virtual server on which the LIF resides.
vifIp (STRING): IP address of the LIF that is being moved.
toNode (STRING): Name of the node to which the LIF is moving.
toPort (STRING): Name of the port to which the LIF is moving.
fromNode (STRING): Name of the node from which the LIF is moving.
fromPort (STRING): Name of the port from which the LIF is moving.

vifmgr.portspeed events

vifmgr.portspeed.err

Severity

ERROR

Description

This message occurs when a port is connected to a switch utilizing a link speed that is not qualified. This might lead to unexpected system behaviors.

Corrective Action

Ensure that the affected network port is connected to a switch that uses a link speed supported by this node. If necessary, adjust the switch configuration to assign a lower speed.

Syslog Message

Node %s port %s is reporting a speed %s that is not supported.

Parameters

nodename (STRING): Name of the node on which the affected port resides.
portname (STRING): Name of the affected port.
portspeed (STRING): Operational speed of the affected port.

vifmgr.portup events

vifmgr.portup

Severity

NOTICE

Description

This message occurs when a link up event was received on a network port. Data access through this physical port is now available.

Corrective Action

(None).

Syslog Message

A link up event was received on node %s, port %s.

Parameters

nodename (STRING): Name of the node on which the affected port resides.
portname (STRING): Name of the affected port.

vifmgr.rdma events

vifmgr.RDMA.lifMoved

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) is moved from a port that does not support the required remote direct memory access (RDMA) protocols of the LIF.

Corrective Action

(None).

Syslog Message

LIF "%s" (on virtual server "%s"), with IP address "%s", is being moved to node "%s", port "%s", from node "%s", port "%s", because the port does not support the LIF's RDMA protocols.

Parameters

vifName (STRING): Name of the LIF that is being moved.
vsrvId (STRING): ID of the virtual server on which the LIF resides.

vifIp (STRING): IP address of the LIF that is being moved.
toNode (STRING): Name of the node to which the LIF is being moved.
toPort (STRING): Name of the port to which the LIF is being moved.
fromNode (STRING): Name of the node on which the LIF is currently hosted.
fromPort (STRING): Name of the port on which the LIF is currently hosted.

vifmgr.reach events

vifmgr.reach.avail

Severity

NOTICE

Description

This message occurs when the node has completed its initial scan of reachability for all ports.

Corrective Action

(None).

Syslog Message

Node %s has completed its initial scan of reachability for all ports.

Parameters

node (STRING): Name of the node on which the network port resides.

vifmgr.reach.err

Severity

ERROR

Description

This message occurs when a network port encountered errors while scanning for reachability.

Corrective Action

Verify the network port's physical connectivity and switch configuration. A network port should have reachability only to its expected broadcast domain.

Syslog Message

Network port %s on node %s encountered errors while scanning for reachability. Reachability was detected to the following broadcast domains: %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
reachableBroadcastDomains (STRING): Names of the broadcast domains that are reachable from the port.

vifmgr.reach.miscfg

Severity

ERROR

Description

This message occurs when a network port cannot reach its expected broadcast domain but has reachability to another broadcast domain.

Corrective Action

Verify the network port's physical connectivity and switch configuration. A network port should have reachability only to its expected broadcast domain.

Syslog Message

Network port %s on node %s cannot reach its expected broadcast domain %s, but reachability was detected to broadcast domain %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
broadcastDomain (STRING): Name of the broadcast domain associated with the port.
reachableBroadcastDomains (STRING): Names of the broadcast domains that are reachable from the port.

vifmgr.reach.miscfg.unassn

Severity

NOTICE

Description

This message occurs when a network port is not assigned to a broadcast domain but has reachability to a broadcast domain.

Corrective Action

Verify the network port's physical connectivity and switch configuration. A network port should have reachability only to its expected broadcast domain.

Syslog Message

Network port %s on node %s is not assigned to a broadcast domain, but reachability was detected to broadcast domain %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
reachableBroadcastDomains (STRING): Names of the broadcast domains that are reachable from the port.

vifmgr.reach.multireach

Severity

ERROR

Description

This message occurs when a network port is determined to have reachability to multiple broadcast domains.

Corrective Action

Verify the network port's physical connectivity and switch configuration. A network port should have reachability only to its expected broadcast domain.

Syslog Message

Network port %s on node %s can reach the following broadcast domains: %s.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
reachableBroadcastDomains (STRING): Names of the broadcast domains that are reachable from the port.

vifmgr.reach.noreach

Severity

NOTICE

Description

This message occurs when a network port cannot reach its expected broadcast domain or any other broadcast domain.

Corrective Action

Verify the network port's physical connectivity and switch configuration. A network port should have reachability only to its expected broadcast domain.

Syslog Message

Network port %s on node %s cannot reach its expected broadcast domain %s. No other broadcast domains appear to be reachable from this port.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
broadcastDomain (STRING): Name of the broadcast domain associated with the port.

vifmgr.reach.ok

Severity

NOTICE

Description

This message occurs when a network port's actual broadcast domain reachability matches its expected reachability, and no other broadcast domains appear to be reachable from the port.

Corrective Action

(None).

Syslog Message

Network port %s on node %s can reach its expected broadcast domain %s. No other broadcast domains appear to be reachable from this port.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.
broadcastDomain (STRING): Name of the broadcast domain associated with the port.

vifmgr.reach.skipped

Severity

NOTICE

Description

This message occurs when a network port was not scanned for reachability because it was administratively or operationally down at the time of the scan.

Corrective Action

(None).

Syslog Message

Network port %s on node %s was not scanned for reachability because it was administratively or operationally down at the time of the scan.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.

vifmgr.reach.unassn

Severity

NOTICE

Description

This message occurs when a network port is not assigned to a broadcast domain, and has no reachability to any broadcast domains.

Corrective Action

(None).

Syslog Message

Network port %s on node %s is not assigned to any broadcast domain. No broadcast domains appear to be reachable from this port.

Parameters

port (STRING): Name of the network port.
node (STRING): Name of the node on which the network port resides.

vifmgr.rpc events

vifmgr.rpc.nblade.timeouts

Severity

ERROR

Description

This message occurs when the virtual interface manager (vifmgr) is having trouble communicating with the packet and connection processing module of the network component. If this problem persists, interface failover might not occur as intended, resulting in a disruption.

Corrective Action

If the node is experiencing heavy load, the condition might clear up automatically after a few minutes. If the condition persists, contact NetApp technical support.

Syslog Message

The virtual interface manager is not receiving responses from the node's networking component.

Parameters

(None).

vifmgr.secondaryoffline events

vifmgr.secondaryOffline

Severity

NOTICE

Description

This message occurs when the system determines that a remote node has been offline for more than a minute and assigns logical network interfaces (LIFs) from that node to other available nodes in the cluster.

Corrective Action

(None).

Syslog Message

LIFs from offline node "%s" are being assigned to other available nodes in the cluster.

Parameters

offlineNode (STRING): Name of the offline node.

vifmgr.skippingl2pingtest events

vifmgr.skippingL2PingTest

Severity

NOTICE

Description

This message occurs when the number of local ports in the given broadcast domain exceeds the threshold for a node and, as a result, the l2_reachability health monitor has omitted checking ports in that broadcast domain. If any local ports in this broadcast domain experience Layer 2 connectivity problems, they are not marked as degraded and no EMS messages related to the Layer 2 connectivity health of those ports is generated. LIFs hosted on those port are not automatically migrated to healthy ports because of Layer 2 connectivity issues.

Corrective Action

This is not a misconfiguration; however, including fewer than the specified threshold ports in the broadcast domain enables the l2_reachability health monitor to check the health of the ports in that broadcast domain.

Syslog Message

Skipping l2_reachability health monitor check for ports belonging to broadcast domain %s on node %s as the number of local ports (%u) belonging to this broadcast domain exceeds the threshold (%u) for which l2_reachability health monitor check can efficiently run.

Parameters

bcDomainName (STRING): Name of the broadcast domain for which the l2_reachability health monitor check is being skipped.
nodeName (STRING): Name of the node for which the number of local ports in the given broadcast domain exceeds the threshhold.
numLocalPorts (INT): Number of local ports in the specified broadcast domain.
maxLocalPorts (INT): Threshold value for the maximum number of local ports in a broadcast domain for which the l2_reachability health monitor check can run.

vifmgr.started events

vifmgr.started

Severity

NOTICE

Description

This message occurs to notify you that the Logical Interface Manager (VIFMgr) started.

Corrective Action

(None).

Syslog Message

The Logical Interface Manager (VIFMgr) has started.

Parameters

(None).

vifmgr.startup events

vifmgr.startup.failover.err

Severity

ALERT

Description

This message occurs when the logical interface manager (VIFMgr) encounters an error while initializing the structures required for logical interface (LIF) failover. As a result of this error, the node is now running in a degraded state.

Corrective Action

Contact NetApp technical support and reference the "vifmgr.startup.failover.err" error.

Syslog Message

VIFMgr encountered errors during startup.

Parameters

(None).

vifmgr.startup.merge.err

Severity

ERROR

Description

This message occurs to notify you that the Logical Interface Manager (VIFMgr) encountered an error while merging the local node's network configuration with the configuration stored in the cluster database. As a result of this error, the node is now running in a degraded state.

Corrective Action

Contact NetApp technical support.

Syslog Message

The Logical Interface Manager (VIFMgr) encountered errors during startup.

Parameters

(None).

vifmgr.staticroute events

vifmgr.staticRoute.add

Severity

NOTICE

Description

This message occurs when a static route is added to a Vserver.

Corrective Action

(None).

Syslog Message

Static route created on Vserver %s: dest %s, gw %s, metric %u.

Parameters

vserverName (STRING): Name of the Vserver on which the static route was added.
destination (STRING): The IP subnet to which the route applies.
gateway (STRING): The IP address of the gateway.
metric (INT): The metric of the route, used to determine its priority relative to other routes for the Vserver.

vifmgr.staticRoute.del

Severity

NOTICE

Description

This message occurs when a static route is deleted from a Vserver.

Corrective Action

(None).

Syslog Message

Static route deleted from Vserver %s: dest %s, gw %s, metric %u.

Parameters

vserverName (STRING): Name of the Vserver from which the static route was deleted.
destination (STRING): The IP subnet to which the route applies.
gateway (STRING): The IP address of the gateway.
metric (INT): The metric of the route, used to determine its priority relative to other routes for the Vserver.

vifmgr.staticRoute.netadd

Severity

NOTICE

Description

This message occurs when a static route is added to the network routing table of a storage virtual machine (SVM).

Corrective Action

(None).

Syslog Message

Static route added to the network routing table for SVM %u: dest %s, gw %s, metric %u.

Parameters

SVM (INT): ID of the SVM on which the static route was added.
destination (STRING): IP subnet to which the route applies.
gateway (STRING): IP address of the gateway.
metric (INT): Metric of the route, used to determine its priority relative to other routes for the SVM.

vifmgr.staticRoute.netremove

Severity

NOTICE

Description

This message occurs when a static route is removed from the network routing table of a istorage virtual machine (SVM).

Corrective Action

(None).

Syslog Message

Static route removed from the routing table for SVM %u: dest %s, gw %s.

Parameters

SVM (INT): ID of the SVM from which the static route was deleted.
destination (STRING): IP subnet to which the route applies.
gateway (STRING): The IP address of the gateway.

vifmgr.subnet events

vifmgr.subnet.addr.acquired

Severity

NOTICE

Description

This message occurs when an address is successfully acquired from a subnet's available-ranges list.

Corrective Action

(None).

Syslog Message

Address %s has been successfully acquired from subnet %s (ipspace %s).

Parameters

address (STRING): Address acquired.
subnet (STRING): Name of the subnet.
ipspace (STRING): Name of the subnet's IPspace.

vifmgr.subnet.addr.released

Severity

NOTICE

Description

This message occurs when an address is successfully released back to a subnet's available-ranges list.

Corrective Action

(None).

Syslog Message

Address %s has been successfully released back to subnet %s (ipspace %s).

Parameters

address (STRING): Address released.
subnet (STRING): Name of the subnet.
ipspace (STRING): Name of the subnet's IPspace.

vifmgr.subnet.usedAddr

Severity

ERROR

Description

This message occurs when a LIF's address conflicts with a subnet's list of used and available addresses due to an inconsistency in the configuration of the subnet or LIF.

Corrective Action

Either the address of the LIF, the address ranges, or the available addresses in the subnet need to be adjusted. To identify the LIF, use the advanced-priviledge command "network interface show" setting the "numeric-id" parameter to that of the LIF in the message. To change the address of the LIF, use the "network interface modify" command, specifying the address and netmask. To remove the address from the subnet, use the "network subnet remove-ranges" command.

Syslog Message

LIF %d has an address %s that is in Subnet's %s unused pool.

Parameters

lif (INT): Identifier of the LIF with the address conflict.
address (STRING): Address owned by both LIF and subnet.
subnet (STRING): Name of the subnet.

vifmgr.svcpolicy events

vifmgr.svcPolicy.addSvc

Severity

NOTICE

Description

This message occurs when a service is added to a network interface service policy.

Corrective Action

(None).

Syslog Message

Service %s has been added to network interface service policy %s on Vserver %s.

Parameters

>**service** (STRING): Name of the service that has been added.
>**policy** (STRING): Name of the affected service policy.
>**vserver** (STRING): Name of the Vserver associated with this policy.
>**allowed_addresses** (STRING): List of allowed address masks for this service.

vifmgr.svcPolicy.deprecated

Severity

>NOTICE

Description

>This message occurs when a network interface (LIF) is configured to use a deprecated service policy.

Corrective Action

>Use the recommended service policy to replace the deprecated service policy.

Syslog Message

>LIF "%s" on Vserver "%s" is using deprecated service policy: %s. Recommended service policy: %s.

Parameters

>**lif_name** (STRING): LIF name.
>**vserver** (STRING): Vserver name.
>**deprecated_service_policy** (STRING): Deprecated service policy name.
>**service_policy** (STRING): Recommended service policy.

vifmgr.svcPolicy.remSvc

Severity

>NOTICE

Description

>This message occurs when a service is removed from a network interface service policy.

Corrective Action

>(None).

Syslog Message

>Service %s has been removed from network interface service policy %s on Vserver %s.

Parameters

>**service** (STRING): Name of the service that has been removed.
>**policy** (STRING): Name of the affected service policy.
>**vserver** (STRING): Name of the Vserver associated with this policy.

vifmgr.unabletohostmovedlif events

vifmgr.unabletohostmovedlif

Severity

NOTICE

Description

This message occurs when an attempt to move a logical interface (LIF) IP address to a specific node/port failed, and a subsequent attempt was made to move that LIF to another location.

Corrective Action

(None).

Syslog Message

LIF %s (on virtual server %s), IP address %s, could not be hosted and is being moved to node %s, port %s (error %s).

Parameters

vifname (STRING): Name of the LIF that is being moved.
vsrvid (STRING): Name of the virtual server identifier on which this LIF resides.
vifip (STRING): The logical interface's IP address that is being moved.
tonode (STRING): Name of the node to where the LIF is moving.
toport (STRING): Name of the port to where the LIF is moving.
error (STRING): Error that was reported.

vifmgr.viplifwithoutbgp events

vifmgr.vipLifWithoutBgp

Severity

ERROR

Description

This message occurs when a logical interface (LIF) associated with the Virtual IP (VIP) feature does not have a BGP peer group.

Corrective Action

Use the "network bgp peer-group create" command to create a BGP peer group with the same IPspace and node as the affected LIF.

Syslog Message

VIP lif %s on Vserver %s does not have BGP peer group in IPspace %s on node %s.

Parameters

lif (STRING): LIF name.
vserver_name (STRING): Vserver name.
ipspace_name (STRING): IPspace name.
node_name (STRING): Name of the node to which LIFs could not be replicated.

vifmgr.vs events

vifmgr.vs.cache.updateFailed

Severity

ALERT

Description

This message occurs when Logical Interface Manager (VIFMgr) is unable to retrieve the list of Vservers from the management gateway Vserver cache in the allotted time. VIFMgr attempts to recover from this issue. If unsuccessful, clients might not be able to access data through this node.

Corrective Action

If the problem persists, contact Contact NetApp technical support. for assistance.

Syslog Message

VIFMgr is unable to receive a Vserver cache update from the management gateway.

Parameters

(None).

virtual events

virtual.limits events

virtual.limits.disabled

Severity

INFORMATIONAL

Description

This message occurs when the process virtual memory limit calculations are disabled on a given node. The virtual memory calculations are explicitly disabled by setting the boot argument "bootarg.engage_vss_limit=false".

Corrective Action

(None).

Syslog Message

Virtual memory limit calculations are disabled on node %s.

Parameters

node (STRING): Name of the node where the calculations are disabled.

virtual.limits.proc

Severity

INFORMATIONAL

Description

This message occurs when the process virtual limit is overridden by the /mroot/etc/cluster_config/vsz_override file. An entry in this file indicates that the default virtual size of a process needed to be overridden.

Corrective Action

(None).

Syslog Message

Virtual memory limit for process %s on node %s overridden to %llu.

Parameters

process (STRING): Process that required the override
node (STRING): Node name where the file was updated.
size (LONGINT): New virtual size, in bytes.

vldb events

vldb.adtcons events

vldb.adtcons.rpcfailure

Severity

ERROR

Description

This message occurs when the Remote Procedure Call (RPC) from the Volume Location Database (VLDB) to the Management Gateway (MGWD) fails. This RPC updates the audit resource database when a volume belonging to a Vserver on a specific aggregate is deleted or moved from that aggregate and that volume is the last volume belonging to that Vserver residing on that aggregate.

Corrective Action

Update the audit resource database by creating a temporary volume belonging to the applicable Vserver and aggregate. The temporary volume can take the defaults for the following commands and does not need to be exported to clients for data access: 'volume create -volume volume_name -aggregate aggr_name -vserver vserverid' After creating the temporary volume, delete it manually by using the following command: 'volume delete -volume volume_name -vserver vserverid' This process updates the audit resource database in the cluster and recovers from this error condition. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

RPC failure linked with the consolidation job for auditing on Vserver ID '%d', and aggregate '%s'.

Parameters

vserverid (INT): ID of the Vserver that owned the last volume deleted or moved from the aggregate.
aggruuid (STRING): UUID of the aggregate that owned the moved or deleted volume.

vldb.aggrbladeid events

vldb.aggrBladeID.missing

Severity

NOTICE

Description

This message occurs when the system discovers an inconsistency in the volume location database (VLDB). The VLDB contains information about volumes that are owned by a node with an unknown unique universal ID (UUID). This condition might arise if an aggregate is not owned by any of the nodes in the cluster, as in the case of aggregates at a MetroCluster® destination site.

Corrective Action

(None).

Syslog Message

The volume '%s' is located on the aggregate with UUID '%s' whose owning dblade UUID '%s' does not exist in the Volume Location Database.

Parameters

> **volume** (STRING): Name of the volume.
> **aggregateUUID** (STRING): UUID of the aggregate.
> **bladeUUID** (STRING): UUID of the owning node.

vldb.aggregatename events

vldb.aggregateName.mismatch

Severity

> INFORMATIONAL

Description

> This message occurs when an aggregate's name in the Volume Location Database (VLDB) does not match the aggregate's current name on the node. This could happen if the name of the aggregate was changed or if another aggregate in the cluster has it's UUID changed to another aggregate's UUID in the cluster, as reported to the VLDB.

Corrective Action

> (None).

Syslog Message

> The aggregate '%s' with name '%s' on node '%s' does not match with the name '%s' in the VLDB.

Parameters

> **aggregate** (STRING): UUID of the aggregate.
> **newName** (STRING): New name of the aggregate on the node.
> **node** (STRING): Name of the node.
> **existingName** (STRING): Existing name of the aggregate in the VLDB.

vldb.aggregateuuid events

vldb.aggregateUUID.mismatch

Severity

> INFORMATIONAL

Description

> This message occurs when an aggregate's Universally Unique Identifier (UUID) in the Volume Location Database does not match the aggregate's current UUID. This could happen if the UUID of the aggregate was changed or if another aggregate in the cluster with the same name is plugged in.

Corrective Action

> (None).

Syslog Message

> The aggregate '%s' with UUID '%s' on node '%s' was changed to '%s' in the Volume Location Database.

Parameters

> **aggregate** (STRING): Name of the aggregate.
> **existingUUID** (STRING): Existing Universally Unique Identifier (UUID) of the aggregate.
> **node** (STRING): Name of the node.
> **newUUID** (STRING): New Universally Unique Identifier (UUID) of the aggregate.

vldb.aggregateUUID.missing

Severity

> ERROR

Description

> This message occurs due to a Volume Location Database inconsistency. The Volume Location Database contains a volume that exists on a aggregate whose universal unique identifier (UUID) is not in the Volume Location Database. This might happen if an aggregate that contains volumes is deleted: for example, through the maintenance menu.

Corrective Action

> Contact technical support.

Syslog Message

> The volume '%s' is located on the aggregate with UUID '%s' which does not exist in the Volume Location Database.

Parameters

> **volume** (STRING): Name of the volume
> **aggregateUUID** (STRING): Universal Unique Identifier (UUID) of the aggregate

vldb.aggrupdate events

vldb.aggrUpdate.noRepl

Severity

> ERROR

Description

> This message occurs in a MetroCluster(tm) configuration, when the blade UUID (Universal Unique Identifier) is updated on the local cluster, but a failure prevents the aggregate ownership update from being replicated to the remote cluster.

Corrective Action

> Contact NetApp technical support for assistance.

Syslog Message

> The ownership update of aggregates on blade UUID '%s' was not replicated to the remote cluster.

Parameters

> **bladeUUID** (STRING): UUID of the Dblade owning the aggregate.

vldb.aggrvote events

vldb.aggrVote.noRepl

Severity

INFORMATIONAL

Description

This message occurs when a row of the aggr vote table is not replicated to the local table when an update is received from the remote cluster. Replication is skipped if the storage and NVRAM mirroring connectivity was indicated as down when the record was updated.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggrUUID (STRING): The UUID of the aggregate whose mirror vote was not replicated.
localNplexes (INT): The value of nplexes in the local table.
localPlex0 (INT): The value of plex0 id in the local table.
localPlex1 (INT): The value of plex1 id in the local table.
remoteNplexes (INT): The value of nplexes from the remote cluster update.
remotePlex0 (INT): The value of plex0 id from the remote cluster update.
remotePlex1 (INT): The value of plex1 id from the remote cluster update.

vldb.mccaggregate events

vldb.mccaggregate.rename

Severity

INFORMATIONAL

Description

This message occurs during MetroCluster(tm) configuration setup, when the aggregate at the destination site is renamed to handle a name collision. This can happen when an aggregate is renamed at the source site, which causes its mirror to be renamed at the destination site. It can also happen when an aggregate is created at the source site, which causes its mirror to be created at the destination site. In both cases, the issue is that an aggregate of the same name already exists on the destination site, resulting in a name collision. The aggregate at the destination is renamed to resolve the name collision.

Corrective Action

If desired, rename the aggregate at the source site to a name that does not collide with an existing name at the destination site. You can choose any new name that does not cause a name collision; the new name will be propagated to the destination site. If the old name is used in any scripts, you should also change those to the new name. If you choose not to rename the aggregate at the source site, the aggregate will have different names at the source and destination sites, but functionality is not affected.

Syslog Message

The aggregate with UUID '%s' and name '%s' is renamed at the MetroCluster configuration destination site as '%s'.

Parameters

uuid (STRING): Universally Unique Identifier (UUID) of the aggregate.
aggrNameStr (STRING): Name of the aggregate at the source site.
aggrRenameStr (STRING): Name of the aggregate at the destination site.

vldb.update events

vldb.update.duringsofail

Severity

EMERGENCY

Description

This message occurs when the aggregate ownership update fails during switchover. The update is initiated by the management gateway daemon (mgwd), to fetch aggregate information from all of the nodes in the cluster and to update the volume location database (VLDB).

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

Aggregate ownership update failed for node '%s'.

Parameters

hostname (STRING): Name of the node.

vldb.vldbaggr events

vldb.vldbAggr.missing

Severity

ERROR

Description

This message occurs when an aggregate is identified that does not exist in the Volume Location Database. This could happen if a disk shelf that constitutes an aggregate is plugged in or when an aggregate is created in Maintenance mode.

Corrective Action

If this is a new aggregate that must be added to the Volume Location Database, then use the (privilege: diag) "debug vreport" command to resolve the inconsistency in the VLDB: 1. Run "debug vreport show" to show the object name. 2. Run "debug vreport fix -type aggregate -object object-name". If this is a stale aggregate that must be removed, then contact support personnel.

Syslog Message

The aggregate "%s" with UUID "%s" on node "%s" does not exist in the Volume Location Database.

Parameters

> **aggregate** (STRING): Name of the aggregate.
> **uuid** (STRING): Universally Unique Identifier (UUID) of the aggregate.
> **node** (STRING): Name of the node.

vldb.vsrootvol events

vldb.vsRootVol.del

Severity

> INFORMATIONAL

Description

> This message occurs when the Vserver root volume is force deleted while non-root volumes for the Vserver still exist in the cluster. Under normal circumstances, the Vserver root volume cannot be deleted until all the other volumes for the Vserver are deleted. Although deleting the Vserver root volume does not change the operational state for the Vserver, volume operations that refer to the Vserver root volume for information will fail if the corrective action is not taken.

Corrective Action

> Assign an already existing data volume as the new root volume for the Vserver whose root volume was deleted by using the 'volume make-vsroot -vserver vserver_name -volume new_root_volume_name' command.

Syslog Message

> The root volume '%s' for the Vserver with Vserver ID '%d' was force deleted while non-root volumes for the Vserver still exist in the cluster.

Parameters

> **volume** (STRING): Root volume name that was deleted.
> **vserverid** (INT): ID for the Vserver that owned the deleted root volume.

vm events

vm.dev events

vm.dev.diskSlowIO

Severity

ERROR

Description

This message occurs when Data ONTAP® is running on a virtual platform, and slow I/O is detected.

Corrective Action

Collect virtual platform logs and trigger a performance archive AutoSupport® messsage with the "autosupport invoke-performance-archive" command, and then contact NetApp technical support for troubleshooting assistance.

Syslog Message

The %s request on disk %s took %u seconds (data size %u bytes, threshold %u seconds).

Parameters

op (STRING): Read/write operation.
disk (STRING): Disk name.
secUsed (INT): Seconds the I/O spent.
size (INT): Data size.
secLimit (INT): Threshold in seconds that triggers the warning.

vm.dev.writeprotected

Severity

ERROR

Description

This message occurs when ONTAP® software is running on a virtual platform, and a write-protected device is detected. The device is not presented to ONTAP.

Corrective Action

Detach the device, and then reattach the device as writable.

Syslog Message

The device %s is write-protected and is not presented to ONTAP.

Parameters

device (STRING): Device name.

vm.host events

vm.host.error

Severity

EMERGENCY

Description

This message occurs when a VM is paused by the hypervisor. The backing datastore might have been filled or connectivity to the datastore might have been lost. Corrective actions should be performed as soon as possible.

Corrective Action

Check the hypervisor logs to determine whether the backing datastore is full or connectivity to the datastore was lost, and then take the appropriate corrective action.

Syslog Message

The VM is paused possibly due to a full datastore or connectivity to the datastore might have been lost. Check the hypervisor logs for errors, and then perform any necessary corrective actions as soon as possible.

Parameters

(None).

vnm events

vnvram events

vnvram.dma events

vnvram.dma.long.wait

Severity

ALERT

Description

This message occurs when a vNVRAM flush operation on an ONTAP-v system is taking too much time. This can indicate back-end storage issues or an internal error. The system might also reboot.

Corrective Action

If the problem persists, check for back-end storage issues with the system disk.

Syslog Message

vNVRAM flush taking over %d seconds.

Parameters

vnvr_wait_sec (INT): Time in seconds for the vNVRAM flush operation.

vnvram.flush events

vnvram.flush.ems

Severity

NOTICE

Description

This message occurs when the write to the backing storage device for the EMS region of VNVRAM (virtual NVRAM) takes longer than 500 msec.

Corrective Action

(None).

Syslog Message

EMS region write to VNVRAM persistent storage took %d seconds.

Parameters

vnvr_write_time (LONGINT): Time in seconds taken for the EMS region write to persistent storage.

vnvram.flushed events

vnvram.flushed

Severity

NOTICE

Description

This message occurs when the VNVRAM contents of any ONTAP-based virtual appliance that is not using full-mode VNVRAM, are written to the backing storage device. The writes would have occurred during either a clean or dirty shutdown.

Corrective Action

(None).

Syslog Message

Write to VNVRAM persistent storage is complete (%s) elapsed %d ms.

Parameters

vnvr_reg (STRING): Section of NVRAM that was written to the backing device.
flush_time_ms (INT): Time taken to write the NVRAM section.

vol events

vol.clone events

vol.clone.split.optimized

Severity

NOTICE

Description

This message occurs when the clone split of a volume clone takes the optimized path which uses an Azure copy blob operation to copy objects from the parent volume to the clone.

Corrective Action

(None).

Syslog Message

Clone split of volume "%s" hosted on FabricPool "%s" takes the optimized path using Azure copy blob operation.

Parameters

volume_name (STRING): Volume clone.
aggregate_name (STRING): Aggregate which hosts the volume clone.

vol.duplicate events

vol.duplicate.msid

Severity

EMERGENCY

Description

This message occurs when a duplicate master set ID (MSID) has been detected. This situation might cause ONTAP to incorrectly group together the constituents of separate FlexGroup volumes. This might result in inconsistencies, as ONTAP creates directories and files across separate FlexGroup volumes. This might lead ONTAP to mark FlexGroup volume constituents as inconsistent and take them offline. ONTAP might even mark the entire aggregate as inconsistent and take it offline.

Corrective Action

Contact NetApp technical support immediately.

Syslog Message

Duplicate MSID "%lu" has been detected in SVM "%s". The duplicate MSID is used for volumes "%s" and "%s".

Parameters

volumeMsid (LONGINT): MSID of the volumes.
vserverName (STRING): Name of the storage virtual machine (SVM) on which the volumes reside.
firstVolName (STRING): Name of the first volume with the duplicate MSID.
secondVolName (STRING): Name of the second volume with the duplicate MSID.

vol.inconsistent events

vol.inconsistent.modify

Severity

INFORMATIONAL

Description

This message occurs when the "vol inconsistent" command is used to modify a volume's state.

Corrective Action

(None).

Syslog Message

Volume %s: 'vol inconsistent' command used to change inconsistent state to '%s'.

Parameters

vol (STRING): Name of the volume.
state (STRING): State of the action "set" or "clear".

vol.language events

vol.language.changed

Severity

INFORMATIONAL

Description

This event is issued when the language of an aggregate or a volume is changed.

Corrective Action

(None).

Syslog Message

Language on %s %s changed to %s

Parameters

vol_type (STRING): Whether this event is generated for an aggregate or a flexible volume.
vol (STRING): The name of the volume or aggregate
lang (STRING): The name of the changed language of the volume or aggregate.

vol.language.openFailed

Severity

ERROR

Description

This message occurs when an attempt to open the language file fails.

Corrective Action

Check whether the language file exists. Retry the command based on the reason for failure.

Syslog Message

Failed to open the language file %s, error message: %s

Parameters

file_name_location (STRING): Language file name and location.
error_str (STRING): Reason for the error.

vol.language.unspecified

Severity

INFORMATIONAL

Description

This event is issued when ONTAP detects that there is no language specified for the volume or aggregate. The referenced volume or aggregate language will default to "C" (POSIX). See the na_vol.1 man page for the list of supported languages.

Corrective Action

If the volume is not read-only, use the 'vol lang' command to correct the language of the volume. See the na_vol.1 man page for details about using the 'vol lang' command.

Syslog Message

Language not set on %s %s. Using language config "C". %s

Parameters

vol_type (STRING): Whether this error occurred for an aggregate or a flexible volume
vol (STRING): The name of the volume or aggregate
lang_command (STRING): If the volume is not read-only, this parameter contains an explanation of what you can do to set the language for the volume.

vol.log events

vol.log.overalloc

Severity

ALERT

Description

This message occurs when the volume or aggregate allocates more space than it can honor by way of reservations, or the aggregate has allocated more space than it can honor by way of guarantees. If the reserved or guaranteed space is consumed, there is insufficient physical space, which can cause the volume or aggregate to be taken offline.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume or aggregate size, deleting data, deleting Snapshot copies, or changing the provisioning from thick to thin. To increase a volume's size, use the "volume size" command. To delete a volume's Snapshot copies, use the "volume snapshot delete" command. To change provisioning in a volume, reserved files can be unreserved by using the "volume file

reservation" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate Snapshot copies are deleted automatically when the aggregate is full. To change provisioning of a volume in an aggregate, change the volume guarantee from "volume" to "none" by using the "space-guarantee" field of the "volume modify" command. For ASA r2 platforms, create space in the volume or aggregate. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

%s %s%s%s is logically overallocated, using %s%% logical space and %s%% physical space.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
name (STRING): Name of this object.
app (STRING): Application universal unique identifier(UUID).
vserver_uuid (STRING): UUID of the object's storage virtual machine (SVM), if the object is a volume. Otherwise, this string is empty.
percent_logically_full (STRING): Used capacity of the logical space of the object, as a percent. This value can be greater than 100 due to space reserved for metadata. The percentage is computed for the entire object, including Snapshot copy space, and is equivalent to the "Total Used" field in the output of the "volume show-space" or "aggregate show-space" commands.
percent_physically_full (STRING): Used capacity of the physical space of the object, as a percent. This value can be greater than 100 due to space reserved for metadata. The percentage is computed for the entire object, including Snapshot copy space, and is equivalent to the "Total Physical Used" field in the output of the "volume show-space" or "aggregate show-space" commands.

vol.log.overalloc.inc.sav

Severity

ALERT

Description

This message occurs when the volume allocates more space than it can honor. Allocated space is based on all of the physical used blocks, reservations, and space saved by storage efficiency features.

Corrective Action

Create space by increasing the volume size, deleting data or their reservations, or deleting snapshots. To increase volume size, use the "volume size" command. To delete snapshots, use the "volume snapshot delete" command.

Syslog Message

%s %s%s%s (UUID %s) is logically overallocated using %s%% space, which considers space saved by storage efficiency features as well as physically used blocks and reservations.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies. This event should be applicable only to volumes with logical space enforcement enabled.
name (STRING): Name of this object.
app (STRING): Application Universally Unique ID (UUID).
vserver_uuid (STRING): UUID of the object's or volume's Vserver.
object_uuid (STRING): UUID of the object or volume.
percent_full (STRING): Used capacity of the logical space of the object, along with reservations and space saved by the storage efficiency features, as a percentage. This value can be greater than 100 due to space

reserved for metadata. The percentage is computed for the entire object, including snapshot space, and is equivalent to the "logical-used" field in the output of the "volume show-space" command.

vol.max events

vol.max.size.increased

Severity

INFORMATIONAL

Description

This message occurs as a reminder that the maximum volume size limit is increased from the default value defined in the Platform Specific Module (PSM) table.

Corrective Action

(None).

Syslog Message

Maximum volume size limit is increased from %ld TB to %ld TB.

Parameters

old_limit (LONGINT): Original volume size limit as defined in the PSM table.
new_limit (LONGINT): New maximum volume size limit.

vol.mount events

vol.mount.readOnly

Severity

INFORMATIONAL

Description

This message occurs when a volume or aggregate is mounted as read-only.

Corrective Action

(None).

Syslog Message

Mounting vol/aggr '%s' readonly due to 'online -ro' command.

Parameters

name (STRING): Name of the volume or aggregate.

vol.phy events

vol.phy.overalloc.inc.sav

Severity

EMERGENCY

Description

This message occurs when the volume is running dangerously low on free blocks to write to. Free blocks are estimated based on the space saved by the storage efficiency features as well as with physically used blocks.

Corrective Action

Create space by increasing the volume size, deleting data, or deleting snapshots. To increase volume size, use the "volume size" command. To delete snapshots, use the "volume snapshot delete" command.

Syslog Message

%s %s%s%s (UUID %s) is physically overallocated using %s%% space, which considers space saved by storage efficiency features as well as physically used blocks.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies. This event should be applicable only to volumes with logical space enforcement turned on.
name (STRING): Name of this object.
app (STRING): Application Universally Unique ID (UUID).
vserver_uuid (STRING): UUID of the object's or volume's Vserver.
object_uuid (STRING): UUID of the object or volume.
percent_full (STRING): Used capacity of the physical space of the object, along with space saved by the storage efficiency features, as a percentage. This value can be greater than 100 due to efficiency features and space reserved for metadata. The percentage is computed for the entire object, including snapshot space.

vol.phys events

vol.phys.overalloc

Severity

EMERGENCY

Description

This message occurs when the volume or aggregate is running dangerously low on free blocks to write to.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume or aggregate sizes, or by deleting data or deleting Snapshot copies. To increase a volume's size, use the "volume size" command. To delete a volume's Snapshot copies, use the "volume snapshot delete" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate Snapshot copies are deleted automatically when the aggregate is full. For ASA r2 platforms, create space in the volume or aggregate. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

%s %s%s%s is physically overallocated, using %s%% logical space and %s%% physical space.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
name (STRING): Name of this object.
app (STRING): Application universal unique identifier(UUID).

vserver_uuid (STRING): UUID of the object's storage virtual machine (SVM), if the object is a volume. Otherwise, this string is empty.

percent_logically_full (STRING): Used capacity of the logical space of the object, as a percent. This value can be greater than 100 due to space reserved for metadata. The percentage is computed for the entire object, including Snapshot copy space, and is equivalent to the "Total Used" field in the output of the "volume show-space" or "aggregate show-space" commands.

percent_physically_full (STRING): Used capacity of the physical space of the object, as a percent. This value can be greater than 100 due to space reserved for metadata. The percentage is computed for the entire object, including Snapshot copy space, and is equivalent to the "Total Physical Used" field in the output of the "volume show-space" or "aggregate show-space" commands.

vol.registryget events

vol.registryGet.no512520BPS

Severity

NOTICE

Description

This message occurs when a registry request finds no 512 or 520 BPS (bytes per sector) disks.

Corrective Action

(None).

Syslog Message

No disk has 512 or 520 BPS.

Parameters

(None).

vol.registryGet.nonDefBPS

Severity

NOTICE

Description

This message occurs when a registry request finds disks whose BPS (bytes per sector) is other than the default 512 or 520.

Corrective Action

(None).

Syslog Message

Disk had %d BPS; system expected 512 or 520 BPS.

Parameters

cad_bps (INT): Disk configuration attribute of bytes per sector.

vol.registryGet.noZoneCksum

Severity

NOTICE

Description

This message occurs when a registry request for zoned or block checksum volumes finds no such volumes.

Corrective Action

(None).

Syslog Message

No volume has zoned or block checksums.

Parameters

(None).

vol.reserve events

vol.reserve.grew

Severity

ERROR

Description

This message occurs when WAFL® grows the reserve of a flexible volume that is running dangerously low on blocks for writing.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume size, deleting data, or changing the provisioning from thick to thin. To increase a volume's size, use the "volume size" command. To change provisioning in a volume reserved files can be unreserved by using the "volume file reservation" command. For ASA r2 platforms, create space by deleting data or by deleting Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

WAFL grew reserve of volume %s%s%s because the volume was running low on blocks.

Parameters

name (STRING): Name of the volume.
app (STRING): Application universal unique identifier(UUID).
vserver_uuid (STRING): Name of the associated storage virtual machine (SVM)'s UUID.

volaggr events

volaggr.offline events

volaggr.offline

Severity

ALERT

Description

Some aggregates are forced offline. volume creation could cause duplicate FSIDs.

Corrective Action

Bring all offline aggregates online.

Syslog Message

Some aggregates are offline. Volume creation could cause duplicate FSIDs.

Parameters

(None).

volcmd events

volcmd.snapmirror events

volcmd.snapmirror.removed

Severity

ERROR

Description

This mesage occurs to advise you that the 'vol snapmirror' set of commands has been removed.

Corrective Action

Use the 'snapmirror' command instead.

Syslog Message

The 'vol snapmirror' set of commands has been removed; use the 'snapmirror' command instead.

Parameters

(None).

volcopy events

volcopy.dst events

volcopy.dst.autoRestrictMsg

Severity

NOTICE

Description

This event is issued when a vol copy start is issued on a volume which is offline.

Corrective Action

Vol copy start is issued on a restricted volume, use "vol restrict" to restrict the destination volume.

Syslog Message

Vol copy automatically restricting destination volume %s (currently offline).

Parameters

dst (STRING): The vol copy destination volume

volcopy.dst.metadataOnly

Severity

NOTICE

Description

This event is issued when a vol copy start operation is issued on a volume which is reverting its checksum state.

Corrective Action

(None).

Syslog Message

Metadata only vol copy from %s to %s.

Parameters

src (STRING): The vol copy source volume
dst (STRING): The vol copy destination volume

volcopy.dst.noMemory

Severity

ERROR

Description

This event is issued when there is insufficient memory on the vol copy destination for the transfer to continue.

Corrective Action

(None).

Syslog Message

System is low on memory, aborting vol copy destination transfer.

Parameters

(None).

volcopy.dst.revert

Severity

ERROR

Description

This event is issued when a vol copy start operation has to revert the checksum state of the destination volume because the source and destination volumes have differing checksum states.

Corrective Action

No corrective action required.

Syslog Message

A vol copy transfer to destination volume %s has found that the source and destination volumes have differing checksum states. Data ONTAP is aborting the transfer and reverting the checksum state for the destination volume. After ONTAP displays a message showing the revert is complete, you will need to retry the operation. You can use the "vol status -c" command to see the progress of the reversion.

Parameters

dst (STRING): The vol copy destination volume

volcopy.dst.reverting

Severity

ERROR

Description

This event is issued when a vol copy start operation is issued on a volume which is reverting its checksum state.

Corrective Action

(None).

Syslog Message

Aborting vol copy transfer to volume %s because it is reverting its checksum state.

Parameters

dst (STRING): The vol copy destination volume

volcopy.flextotraderr events

volcopy.flexToTradErr

Severity

ERROR

Description

This message occurs when the user tries to copy a flexible volume into a traditional volume using the command 'vol copy'.

Corrective Action

Retry the operation with a flexible volume as the destination.

Syslog Message

vol copy: A flexible volume cannot be copied into a traditional volume.

Parameters

(None).

volcopy.src events

volcopy.src.noMemory

Severity

ERROR

Description

This event is issued when there is insufficient memory on the vol copy source for the transfer to continue.

Corrective Action

(None).

Syslog Message

System is low on memory, aborting vol copy source.

Parameters

(None).

volcopy.src.revertPending

Severity

NOTICE

Description

This message indicates the source is being reverted by WAFL and cannot currently be used for a 'vol copy' operation.

Corrective Action

This message indicates the source is being reverted. After the revert completes the operation should be retried.

Syslog Message

vol copy: The source is being reverted by WAFL

Parameters

(None).

volcopy.src.snapshotErr

Severity

ERROR

Description

This event is issued when we are not able to obtain all the snapshot information, from the vol copy source volume, required for a vol copy transfer.

Corrective Action

(None).

Syslog Message

Vol copy not able to obtain snapshot information from source volume %s

Parameters

src (STRING): The vol copy source volume

volcopy.tradtoflexerr events

volcopy.tradToFlexErr

Severity

ERROR

Description

This message occurs when the user tries to copy a traditional volume into a flexible volume using the command 'vol copy'.

Corrective Action

Retry the operation with a traditional volume as the destination.

Syslog Message

vol copy: A traditional volume cannot be copied into a flexible volume.

Parameters

(None).

volcreate events

volcreate.fsid events

volcreate.fsid.dup

Severity

ERROR

Description

Flexible volumes were created with file system identifiers (FSIDs) which conflict with existing volumes. This can happen when aggregates are forced offline.

Corrective Action

1. run 'aggr online' on all offlined aggregates. some of the old vvols will be forced offline due to the FSID conflict. 2. run 'vol restrict' and 'vol rewrite_fsid' on the new vvol 3. run 'vol online' on each flexible volume that was forced offline in step 1 above.

Syslog Message

Volume %s's fsid 0x%x conflicts with a volume owned by vfiler %s.

Parameters

volName (STRING): Name of the volume created
FSID (INT): FSID of the volume
vfiler_name (STRING): The vfiler which owns the existing offlined volume with the same FSID.

volcreate.name events

volcreate.name.dup

Severity

ERROR

Description

Flexible volumes were created with names which conflict with existing volume names. This can happen when aggregates are forced offline.

Corrective Action

if this is not the root volume of the vfiler: 1. run 'vfiler remove' on the vfiler and the new vvol 2. run 'vol rename' on the new vvol 3. resolve FSID conflicts if any 4. add the old vvol back to the vfiler if this is the root of volume of the vfiler: 1. run 'vfiler destroy' on the vfiler 2. run 'vol rename' on the new vvol 3. resolve FSID conflicts if any 4. run 'vfiler create -r' on the vfiler

Syslog Message

Volume '%s' has a name which conflicts with a volume owned by vfiler '%s'.

Parameters

volName (STRING): Volume being created
vfiler_name (STRING): This vfiler owns an existing volume with the same name.

volmigrate events

volmigrate.error events

volmigrate.error

Severity

INFORMATIONAL

Description

Description of the reason a volume migrate failed or was not attempted.

Corrective Action

(None).

Syslog Message

(None).

Parameters

volName (STRING): Volume being migrated
recipientFiler (STRING): Name of the filer to which the volume was being migrated
error (STRING): The specific error string that details why migrate failed.

volmigrate.migrating events

volmigrate.migrating

Severity

INFORMATIONAL

Description

A volume is being migrated from the filer by means of a SAN ownership change.

Corrective Action

(None).

Syslog Message

Migrating volume %s to %s (ID %s).

Parameters

volName (STRING): Volume being migrated
recipientFiler (STRING): Name of the filer to which the volume is being migrated
recipientSysID (STRING): System ID of the filer to which the volume is being migrated

volmigrate.result events

volmigrate.result

Severity

INFORMATIONAL

Description

Description of the result of a volume migration.

Corrective Action

(None).

Syslog Message

Migration of volume %s to %s %s.

Parameters

volName (STRING): Volume being migrated
recipientFiler (STRING): Name of the filer to which the volume is being migrated
result (STRING): A string describing the result of the migration: either 'was successful' or 'failed'.

volume events

volume.check events

Volume.Check.Completed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

NOTICE

Description

This message occurs when a 'volume check' scan successfully runs to completion.

Corrective Action

(None).

Syslog Message

The 'volume check' scan was completed for volume [%s] on Vserver [%s].

Parameters

volume (STRING): Name of the constituent volume.
vserver (STRING): Vserver hosting the volume.

Volume.Check.Failed

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

ERROR

Description

This message occurs when a 'volume check' scan fails to run to completion.

Corrective Action

Correct the reported error and reissue the 'volume check' command. If error persists, contact NetApp technical support.

Syslog Message

The 'volume check' scan failed for volume [%s] on Vserver [%s] with error [%s].

Parameters

volume (STRING): Name of the constituent volume.
vserver (STRING): Vserver hosting the volume.
error (STRING): Error string.

Volume.Check.Report

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when volume check completes the scan. The report contains information about the following inconsistencies detected and the corrective action taken: 1) Corruption/loss of redirector content. 2) Valid redirector content file, but data file being pointed to did not exist in the Data Constituents. 3) Create Dongle files. 4) NLINKS inconsistency. 5) ACL mismatch. 6) Corrupt data file name. 7) Data file does not have a corresponding redirector file. 8) Corruption/loss of stream redirector content. 9) Valid redirector stream content, but stream data being pointed to did not exist in the Data Constituents. 10) Corrupt stream data file name. 11) Stream data does not have a corresponding redirector stream.

Corrective Action

(None).

Syslog Message

Volume Check Report for Constituent Volume [%s] in Vserver [%s] - Inconsistency - (Issues Found/Issues Fixed); Corrupt Redirector - (%d/%d); Dangling Redirector - (%d/%d); Temporary Files - (%d/%d); NLinks - (%d/%d); ACL mistatch - (%d/%d); Dangling Data File - (%d/%d); Corrupt Data File - (%d/%d); Corrupt Stream Redirector - (%d/%d); Dangling Stream Redirector - (%d/%d); Dangling Stream Data - (%d/%d); Corrupt Stream Data - (%d/%d);

Parameters

volume (STRING): Constituent volume.
vserver (STRING): Vserver hosting the volume.
numOfCorruptRedirectorsFound (INT): Number of corrupt or lost redirectors found.
numOfCorruptRedirectorsFixed (INT): Number of corrupt or lost redirectors fixed.
numOfDanglingRedirectorsFound (INT): Number of dangling redirectors found.
numOfDanglingRedirectorsFixed (INT): Number of dangling redirectors fixed.
numOfTempFilesFound (INT): Number of hidden temporary files remaining after failed creates.
numOfTempFilesRemoved (INT): Number of hidden temporary files removed.
numOfNlinkMisMatchesFound (INT): Number of NLINKS mismatches found.
numOfNlinkMisMatchesFixed (INT): Number of NLINKS mismatches fixed.
numOfACLMisMatchesFound (INT): Number of ACL mismatches found.
numOfACLMisMatchesFixed (INT): Number of ACL mismatches fixed.
numOfDanglingDataFilesFound (INT): Number of dangling data files found.
numOfDanglingDataFilesFixed (INT): Number of dangling data files fixed.
numOfCorruptDataFilesFound (INT): Number of corrupt or lost data files found.
numOfCorruptDataFilesFixed (INT): Number of corrupt or lost data files fixed.
numOfCorruptStreamRedirectorsFound (INT): Number of corrupt stream redirectors found.
numOfCorruptStreamRedirectorsFixed (INT): Number of corrupt stream redirectors fixed.
numOfDanglingStreamRedirectorsFound (INT): Number of dangling stream redirectors found.
numOfDanglingStreamRedirectorsFixed (INT): Number of dangling stream redirectors fixed.
numOfDanglingStreamDataFound (INT): Number of dangling stream data instances found.
numOfDanglingStreamDataFixed (INT): Number of dangling stream data instances fixed.
numOfCorruptStreamDataFound (INT): Number of corrupt stream data instances found.
numOfCorruptStreamDataFixed (INT): Number of corrupt stream data instances fixed.

Volume.Check.Start.Job.Started

Deprecated

Deprecated as of Data ONTAP 9.6 because Infinite Volumes no longer exist.

Severity

INFORMATIONAL

Description

This message occurs when the 'volume check start' command starts the job, but fails to update the RDB(replicated database) table and the corresponding job is still running.

Corrective Action

Use the 'job stop' command to abort the reported job before starting another check.

Syslog Message

A 'volume check' command started job [ID: %s] for volume [%s] in Vserver [%s].

Parameters

jobid (STRING): Job ID of the scan.
volume (STRING): Name of the constituent volume for which the job was started.
vserver (STRING): Vserver hosting the volume.

volume.transition events

volume.transition.plugin.slow

Severity

INFORMATIONAL

Description

This message occurs when a volume transition plug-in is taking longer than expected.

Corrective Action

(None).

Syslog Message

Volume transition on volume %s, plug-in %s running %d ms (expected %d ms).

Parameters

voluuid (STRING): Unique identifier for this volume.
plugin (STRING): Name of the slow plug-in.
used (INT): Runtime for the plug-in, in milliseconds.
expected (INT): Expected runtime for the plug-in, in milliseconds.

vpeer events

vpeer.name events

vpeer.name.conflict

Severity

NOTICE

Description

This message occurs when system generated a new name for a Vserver because of a naming conflict with another Vserver in the local cluster.

Corrective Action

(None).

Syslog Message

Peer Vserver name conflict in local cluster with existing local or peer Vserver %s. Name conflict solved using system generated name %s.

Parameters

peer_vserver (STRING): Vserver name in conflict.
unique_peer_vserver (STRING): Replacement Vserver name generated by the system to resolve the name conflict.

vpeer.request events

vpeer.request.diff.ipspace

Severity

NOTICE

Description

This message occurs when the Vserver peer request is received and Vserver peer permission exists for the Vserver and peer-cluster, but the Vserver belongs to an ipspace that is different from the cluster peer relationship ipspace. The Vserver peer request will remain in the pending state unless explicitly accepted.

Corrective Action

Use the "vserver peer accept" command in the destination cluster to explicitly accept the Vserver peer request, and use the "vserver peer show" command to verify that the Vserver peer goes to peered state.

Syslog Message

"Vserver peer request for the peer-Vserver '%s' and the peer-cluster '%s' needs to be explicitly accepted, because the local Vserver '%s' ipspace: '%s' is different from the cluster peer relationship ipspace: '%s'."

Parameters

peer_vserver (STRING): Peer Vserver name.
peer_cluster (STRING): Peer cluster name.
local_vserver (STRING): Local Vserver name.
vserver_ipspace (STRING): Ipspace of the local Vserver.

cluster_peer_ipspace (STRING): Ipspace of the cluster peer relationship.

vs events

vs.migrate events

vs.migrate.cleanup.completed

Severity

NOTICE

Description

This message occurs when the source Vserver cleanup operation has completed.

Corrective Action

(None).

Syslog Message

Migrate source Vserver cleanup completed for Vserver: %s.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.complete

Severity

NOTICE

Description

This message occurs when migrate operation completed.

Corrective Action

(None).

Syslog Message

Migrate of Vserver:%s has completed.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.cutover.commit.started

Severity

NOTICE

Description

This message occurs when migrate cutover commit started successfully.

Corrective Action

(None).

Syslog Message

Migrate cutover has started for Vserver:%s.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.cutover.completed

Severity

NOTICE

Description

This message occurs when migrate cutover operation completed.

Corrective Action

(None).

Syslog Message

Migrate cutover has completed for Vserver:%s.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.cutover.precommit.started

Severity

NOTICE

Description

This message occurs when the migrate operation has started the precommit for cutover.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.cutover.triggered

Severity

NOTICE

Description

This message occurs when cutover is triggered on a Vserver that is migrating.

Corrective Action

(None).

Syslog Message

Cutover was triggered on a migrating Vserver:%s.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.dst.ponr.updated

Severity

NOTICE

Description

This message occurs when the vserver migrate cutover workflow has reached and updated the point of no return (PONR) on the destination cluster.

Corrective Action

(None).

Syslog Message

Point of no return on destination Vserver %s has been updated successfully.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.failed

Severity

ERROR

Description

This message occurs when the Vserver migrate operation fails.This can occur before/during cutover or during post cutover activity. If failure is before/during cutover then source Vserver is in still operational and if migrate fails during post cutover activity then destination vserver is up. Once migrate issues are fixed, migrate can be resumed back to its origional state.

Corrective Action

Run the "vserver migrate show -fields status-details" to view the error and follow the corrective action recommended.

Syslog Message

Migration of Vserver "%s" Failed.

Parameters

> **vserver_name** (STRING): Vserver name.
> **err_status** (STRING): Reason for the migrate operation failure and the corrective action to fix the problem.
> **migration_uuid** (STRING): Migration UUID.

vs.migrate.pause.complete

Severity

> NOTICE

Description

> This message occurs when the migrate operation for a Vserver is paused.

Corrective Action

> (None).

Syslog Message

> Migrate of Vserver:%s was paused.

Parameters

> **vserver_name** (STRING): Name of the Vserver.
> **migration_uuid** (STRING): Migration UUID.

vs.migrate.precheck.completed

Severity

> NOTICE

Description

> This message occurs when the migrate operation has completed the prechecks.

Corrective Action

> (None).

Syslog Message

> (None).

Parameters

> **vserver_name** (STRING): Name of the Vserver.
> **sourceCluster** (STRING): Name of the source cluster.
> **destinationCluster** (STRING): Name of the destination cluster.

vs.migrate.precheck.failed

Severity

> ERROR

Description

> This message occurs when the migrate operation has failed the prechecks.

Corrective Action

Run the "vserver migrate show" command to view the description of the error and the corrective action.

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
err_status (STRING): Reason for the precheck operation failure and the corrective action to fix the problem.
sourceCluster (STRING): Name of the source cluster.
destinationCluster (STRING): Name of the destination cluster.

vs.migrate.precheck.started

Severity

NOTICE

Description

This message occurs when the migrate operation has started the prechecks.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
sourceCluster (STRING): Name of the source cluster.
destinationCluster (STRING): Name of the destination cluster.

vs.migrate.readyforcutover

Severity

NOTICE

Description

This message occurs when the migrate operation has reached the ready-for-cutover state.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.resume

Severity

NOTICE

Description

This message occurs when the migrate operation for a Vserver is resumed after an abort or a failure.

Corrective Action

(None).

Syslog Message

Migrate of Vserver:%s was resumed.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.rolledback

Severity

NOTICE

Description

This message occurs when Vserver migrate operation moves back from ready-to-cutover to transferring state after cutover was triggerred. This can be due to high transfer duration or due to some failure that might have occured when cutover was triggered on destination cluster.

Corrective Action

(None).

Syslog Message

Migrate state for Vserver %s was rolled back to transferring. Run "vserver migrate show -fields status-details" to see the reason for rollback. If the rollback is due to high transfer duration, reduce the I/O operations at the migrate source cluster to a lower rate.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.abort.completed

Severity

NOTICE

Description

This message occurs when the Vserver migrate abort operation on the source cluster has completed.

Corrective Action

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.abort.failed

Severity

ERROR

Description

This message occurs when the Vserver abort operation on the source cluster has failed.

Corrective Action

Run the "vserver migrate show -fields status-details" command to view the description of the error and the corrective action.

Syslog Message

Vserver migrate abort operation failed for Vserver: %s. Error: %s

Parameters

vserver_name (STRING): Name of the Vserver.
err_status (STRING): Reason for the abort operation failure and the corrective action to fix the problem.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.cleanup.failed

Severity

ERROR

Description

This message occurs when the source Vserver cleanup operation fails.

Corrective Action

Run the "vserver migrate show -fields status-details" command to view the description of the error and the corrective action.

Syslog Message

Migrate source Vserver cleanup failed for Vserver: %s.

Parameters

vserver_name (STRING): Name of the Vserver.
err_status (STRING): Reason for the source cleanup operation failure and the corrective action to fix the problem.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.cleanup.started

Severity

NOTICE

Description

This message occurs when the source Vserver cleanup operation starts. This operation starts only after the Vserver user data and configuration metadata have been replicated to the destination cluster, and the destination Vserver is serving data. This cleanup operation eventually deletes the source Vserver.

Corrective Action

(None).

Syslog Message

Migrate source Vserver cleanup started for Vserver: %s.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.ponr.failed

Severity

ERROR

Description

This message occurs when the vserver migrate cutover workflow has failed to reach and update the point of no return (PONR).

Corrective Action

Run "vserver migrate show -instance" at the source cluster. If the point of no return is set to true, run "vserver migrate restart" command at the migrate destination cluster to start the destination Vserver. If the point of no return is set to false and the source Vserver is in a stopped state, run "Vserver start" at the source cluster to start the Vserver.

Syslog Message

Failed to update point of no return for Vserver %s.

Parameters

vserver_name (STRING): Vserver Name.
err_status (STRING): Reason for the ponr operation failure and the corrective action to fix the problem.
migration_uuid (STRING): Migration UUID.

vs.migrate.src.ponr.updated

Severity

NOTICE

Description

This message occurs when the vserver migrate cutover workflow has reached and updated the point of no return (PONR) on the source cluster.

Corrective Action

(None).

Syslog Message

Point of no return on source Vserver %s has been updated successfully.

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.start

Severity

NOTICE

Description

This message occurs when the migrate operation for Vserver from source cluster to destination cluster starts.

Corrective Action

(None).

Syslog Message

Migrate of Vserver:%s started from source cluster:%s to destination cluster:%s.

Parameters

vserver_name (STRING): Name of the Vserver.
sourceCluster (STRING): Name of the source cluster.
destinationCluster (STRING): Name of the destination cluster.
migration_uuid (STRING): Migration UUID.

vs.migrate.sync.reached

Severity

NOTICE

Description

This message occurs when the migrate operation has reached sync.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.transferring.completed

Severity

NOTICE

Description

This message occurs when the migrate operation has completed the transferring operation.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.migrate.transferring.started

Severity

NOTICE

Description

This message occurs when the migrate operation has started transferring successfully.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vserver_name (STRING): Name of the Vserver.
migration_uuid (STRING): Migration UUID.

vs.multiple events

vs.multiple.adtjobs

Severity

ERROR

Description

This message occurs when more than one Vserver audit consolidation jobs is found.

Corrective Action

Check Vserver audit configuration. If enabled, disable it using the following commands: cluster::> vserver audit show cluster::> vserver audit disable -vserver Check for Vserver audit consolidation jobs. If still present, delete the jobs using the following commands: cluster::> job show cluster::> job expunge -id Check for consolidation processes. If any still exist, kill the processes using the following commands from

systemshell: > ps -auxw | grep adtcons > sudo kill -9 "pid of the process" Enable the Vserver audit configuration by using the following command: cluster::> vserver audit enable

Syslog Message

More than one Vserver audit consolidation jobs found for Vserver %s.

Parameters

vserver (STRING): Name of the Vserver that has more than one consolidation job.

vsa events

vsa.azure events

vsa.azure.nlb.probeActive

Severity

NOTICE

Description

This message occurs when ONTAP® Cloud on Microsoft® Azure® receives a probe, indicating that a transition to the expected normal state has occurred. The port has gone to active state.

Corrective Action

(None).

Syslog Message

Received Load Balancer probe (%s) for %d ports (port range: %d to %d).

Parameters

detail (STRING): Azure Load Balancer probes were received on the ONTAP Network Load Balancer listener port.
activated_ports (INT): Number of ports that received the probe.
first_activated_port (INT): First (lowest) port that received a probe.
last_activated_port (INT): Last (highest) port that received a probe.

vsa.azure.nlb.probeInactive

Severity

ALERT

Description

This message occurs when ONTAP® Cloud on Microsoft® Azure® does not receive expected health probes from the Network Load Balancer service within the expected time limit. This might cause Azure to fail over traffic from the corresponding address. If Azure Load Balancer does not have an active address, all traffic might be blocked from reaching the configured address.

Corrective Action

Verify the configuration of the Azure Load Balancer and the ONTAP Network Load Balancer, as well as the status of the node management LIF. To show the state of the ONTAP Network Load Balancer, use the (privilege: diagnostic) "virtual-machine show-network-load-balancer" command. To show the inactive probes of the ONTAP Network Load Balancer, use the (privilege: diagnostic) "virtual-machine show-network-load-balancer -active false" command. In the above command check if the "Last Probe Time" is being regularly updated(approximately every 5 seconds) and the Cloud Load Balancer probe port matches the "Probe Port".

Syslog Message

Failed to receive Load Balancer probe (%s) for %d ports (port range: %d to %d), within %d seconds.

Parameters

detail (STRING): Azure Load Balancer Probes were not received in the expected timeframe on the ONTAP Network Load Balancer listener port.
missed_ports (INT): Number of ports that did not receive a probe.
first_missed_port (INT): First (lowest) port that did not receive a probe.
last_missed_port (INT): Last (highest) port that did not receive a probe.
timeout_in_seconds (LONGINT): Seconds before timeout occurs.

vsa.cloud events

vsa.cloud.aws.api.rtUpdt

Severity

NOTICE

Description

This message occurs when cluster LIF route update succeeds upon node switchover.

Corrective Action

(None).

Syslog Message

Command "%s" is successfully executed.

Parameters

action (STRING): Amazon Web Services (AWS) API command for route table updates or description.

vsa.cloud.aws.api.rtUpdtFail

Severity

ERROR

Description

This message occurs when cluster LIF route update fails upon node switchover.

Corrective Action

Verify that node has connectivity to Amazon Web Service(AWS) Elastic Cloud Computing(EC2) endpoint; check proxy and security group settings. Verify that node has permissions to access AWS EC2 endpoint, check Identity and Access Management (IAM) roles. Verify that any resource is properly specified; check any resource exists and is allowed to be used for specified purpose. Verify that resources have not reached capacity limits.

Syslog Message

Action: "%s" has failed. HTTP_Response: "%s"

Parameters

action (STRING): Amazon Web Services (AWS) API command for route table updates or description.
error (STRING): HTTP error response.

vsa.cloud.diskReadsThrottled

Severity

NOTICE

Description

This message occurs when Cloud Volumes ONTAP® detects disk I/O (Reads) throttling on its attached disks. Disk I/O throttling might be initiated by the underlying host or cloud provider when it detects that disk I/Os have reached a certain threshold level mandated per virtual machine instance.

Corrective Action

(None).

Syslog Message

Number of disks detected with read I/O throttling: %s. Interval: (%s) to (%s).

Parameters

start_interval (STRING): Start time of the interval during which disk I/Os were throttled.
end_interval (STRING): End time of the interval during which disk I/Os were throttled.
disk_list (STRING): List of disk device names that were detected with throttled disk I/Os (reads).

vsa.cloud.diskWritesThrottled

Severity

NOTICE

Description

This message occurs when Cloud Volumes ONTAP® detects disk I/O (writes) throttling on its attached disks. Disk I/O throttling might be initiated by the underlying host or cloud provider when it detects that disk I/Os have reached a certain threshold level mandated per virtual machine instance.

Corrective Action

(None).

Syslog Message

Number of disks detected with write I/O throttling: %s. Interval: (%s) to (%s).

Parameters

disk_list (STRING): List of disk device names that detected with throttled disk I/Os (writes).
start_interval (STRING): Start time of the interval during which disk I/Os were throttled.
end_interval (STRING): End time of the interval during which disk I/Os were throttled.

vsa.cloud.nlb.probeActive

Severity

NOTICE

Description

This message occurs when Cloud Volumes ONTAP® receives a probe from a Cloud Network Load Balancer, indicating that a transition to the expected normal state has occurred. The port has gone to active state.

Corrective Action

(None).

Syslog Message

Received Cloud Load Balancer probe (now active) for %d ports (port range: %d to %d).

Parameters

activated_ports (INT): Number of ports that received the probe.
first_activated_port (INT): First (lowest) port that received a probe.
last_activated_port (INT): Last (highest) port that received a probe.

vsa.cloud.nlb.probeInactive

Severity

ALERT

Description

This message occurs when Cloud Volumes ONTAP® does not receive expected health probes from the Cloud Network Load Balancer service within the expected time limit. This might cause the Cloud Network Load Balancer to fail over traffic from the corresponding address. If the Cloud Network Load Balancer does not have an active address, all traffic might be blocked from reaching the configured address.

Corrective Action

Verify the configuration of the Cloud Network Load Balancer, using the cloud provider's console. Verify the ONTAP status of the Cloud Network Load Balancer, as well as the configuration and status of the LIF. To show the ONTAP status for all Cloud Network Load Balancer probe ports, use the (privilege: diagnostic) "virtual-machine show-network-load-balancer" command. To show the ONTAP status for just the inactive Cloud Network Load Balancer probe ports, use the (privilege: diagnostic) "virtual-machine show-network-load-balancer -active false" command. In the above command check if the "Last Probe Time" is being regularly updated(approximately every 5 seconds) and the Cloud Load Balancer probe port matches the "Probe Port".

Syslog Message

Failed to receive Cloud Load Balancer probe (now inactive) for %d ports (port range: %d to %d), within %d seconds.

Parameters

missed_ports (INT): Number of ports that did not receive a probe.
first_missed_port (INT): First (lowest) port that did not receive a probe.
last_missed_port (INT): Last (highest) port that did not receive a probe.
timeout_in_seconds (LONGINT): Seconds before timeout occurs.

vsa.cloud.nlb.probeListening

Severity

NOTICE

Description

This message occurs when a Cloud Volumes ONTAP® probe port starts or stops listening for probes from a Cloud Network Load Balancer. The most common scenarios are when node boots up or shuts down.

Corrective Action

(None).

Syslog Message

ONTAP Load Balancer has %s listening for probes from a Cloud Network load Balancer on port %d.

Parameters

detail (STRING): Whether the Cloud Volumes ONTAP probe port has started or stopped listening for probes from the Cloud Load Balancer.
probe_port (INT): Port that the listening event occurred on.

vsa.device events

vsa.device.bad.config

Severity

ALERT

Description

This message occurs when the system detects that the kernel environment variables (kenvs) that are used to configure the core dump and NVRAM devices are missing or inconsistent. If the system is rebooted with a bad configuration, this may result in a failure to boot or incorrect operation of NVRAM or core dump.

Corrective Action

Correct the configuration as directed. Use the "kenv" systemshell command to set and verify the environment variables. Then reboot the system. If the node is not booting or is in a boot loop, use the Loader commands to set and verify the kernel environment variables before rebooting.

Syslog Message

Core dump or NVRAM device configuration problem: %s.

Parameters

detail (STRING): Detail about the misconfiguration and suggestions for correcting the problem.

vsa.diskobjectstore events

vsa.diskObjectStore.cfg.sync

Severity

ALERT

Description

This message occurs when the system detects that a disk object store configuration is not synchronized between both nodes in a shared-storage High-Availability (HA) pair.

Corrective Action

Use the "system node virtual-machine disk-object-store" commands to synchronize the object store configuration.

Syslog Message

Object store configuration %s synchronization issue. Object store "%s" on node "%s" is not synchronized. Details: %s.

Parameters

detail (STRING): The disk object store configuration for shared disks must be identical on both nodes in an HA pair. The system attempts to keep them synchronized when the object store configuration is created, deleted, or modified. However, under unusual circumstances, the synchronization may be unsuccessful. Manual intervention is required to synchronize the configuration.
object_store_name (STRING): Object store name.
partner (STRING): Partner node name.
synchronization_details (STRING): Synchronization state details. For example, the configuration that is missing on the partner, or a list of fields that do not have the same value.

vsa.ephemeral events

vsa.ephemeral.vnvram.reset

Severity

NOTICE

Description

This message occurs when a node is configured to use ephemeral vNVRAM and the virtual machine has been re-hosted, using new ephemeral disk for vNVRAM.

Corrective Action

(None).

Syslog Message

Ephemeral vNVRAM disk for node has changed, due to re-hosting of VM. New serial number: "%s".

Parameters

ephemeral_vnvram_serial_number (STRING): Value of the serial number of the updated ephemeral disk used for vNVRAM.

vsa.instancemetadata events

vsa.instanceMetadata.change

Severity

ALERT

Description

This message occurs when the system detects that a field in the virtual machine's instance metadata settings has changed. The virtual machine instance metadata holds configuration settings for the instance. Some virtual machine settings can be changed after deployment, and can be changed using cloud provider tools. These settings include some that can affect the performance or stability of the instance. One example is the instance type. If the instance type is changed to an unsupported value, this might result in hard-to-diagnose stability issues if that instance type does not have enough memory or CPU cores. This message is generated only for changes that might impact the performance or reliability of the instance.

Corrective Action

If the field is changed to an unsupported value, manual reconfiguration will be required.

Syslog Message

Virtual machine instance metadata setting %s. Field: %s. Previous value: "%s". New value: "%s".

Parameters

detail (STRING): Detail about how the change affects the instance.
field_name (STRING): Instance metadata field name.
previous_value (STRING): Previous value of field.
current_value (STRING): Current value of field.

vsa.mlx events

vsa.mlx.nic.detach

Deprecated

This event is replaced with vsa.sriov.nic.detach to rename the event and be generic.

Severity

NOTICE

Description

This message occurs when ONTAP® software is running as an instance in Azure and a NIC SR-IOV Mellanox (MLX) driver detach event is detected. ONTAP will continue to use the Hyper-V netsvc driver without the SR-IOV functionality for a short time. On HA configurations, unsynchronized logs might appear during this time, which will be resolved if a subsequent SR-IOV attach event occurs. If the SR-IOV attach event does not occur quickly, high-availability (HA) takeover might occur.

Corrective Action

(None).

Syslog Message

NIC SR-IOV driver detach event detected. On HA configurations, unsynchronized logs might result or an HA takeover might occur if SR-IOV remains detached.

Parameters

(None).

vsa.nodesernum events

vsa.nodeSerNum.change.failed

Severity

ALERT

Description

This message occurs when a node serial number change operation fails. The serial number might need to be reverted to the previous value, and the node might need to be rebooted.

Corrective Action

Check the node serial number and state of the node licensing. The serial number might need to be reverted to the previous value. If the reversion does not work, or if there are licensing issues reported by the system, reboot the node. After the node is online, check the serial number and licensing for any issues.

Syslog Message

Node serial number change operation failed. Error detail: %s. Previous value: "%s". New value: "%s".

Parameters

error_detail (STRING): Error details, if available.
previous_value (STRING): Previous value of the serial number.
new_value (STRING): New value of the serial number.

vsa.nodeSerNum.changed

Severity

INFORMATIONAL

Description

This message occurs when a node serial number change operation is completed successfully.

Corrective Action

(None).

Syslog Message

Node serial number change operation was completed successfully. Previous value: "%s". New value: "%s".

Parameters

previous_value (STRING): Previous value of the serial number.
new_value (STRING): New value of the serial number.

vsa.savecore events

vsa.savecore.nospace

Severity

ERROR

Description

This message occurs when the savecore tool determines that the space available is not sufficient for storing the core image from a dump device to a readable core file in the /etc/crash directory.

Corrective Action

Try performing the following steps to make sufficient room in root volume: Delete old or unneeded core files by using the "coredump delete" command. Delete old or unneeded core file segments by using the "coredump segment delete" command. Delete any Snapshot® copies that include the deleted files. Adjust minimum free space on the root file system by using "coredump config modify" command. Once there is sufficient room, take the following steps to save the cores: To save all core files using "coredump save-all" command, run the "coredump status -instance" command and ensure that "Space Available On Internal Filesystem" is greater than "Space Needed to Save All Unsaved Cores" plus "Minimum Free Bytes on Root Filesystem". To save a specific core file, run the "coredump save" command, when available space of

"Space Needed To Save Core" (from the "coredump show" command) plus "Minimum Free Bytes on Root Filesystem" is sufficient.

Syslog Message

Available space (%llu %dKB blocks) is not enough to save the core image (requires up to %llu blocks) and maintain the minimum free space of %llu blocks.

Parameters

avail (LONGINT): Number of blocks available for saving the core image.
blocksize (INT): Block size in kilobytes.
needed (LONGINT): Number of blocks needed for saving the core image.
minfree (LONGINT): Number of blocks reserved for normal system operation.

vsa.scheduledevent events

vsa.scheduledEvent.mlx.detch

Deprecated

This event is replaced with vsa.mlx.nic.detach which is the same, but with a new non-confusing name.

Severity

NOTICE

Description

This message occurs when ONTAP® software is running as an instance in Azure and a NIC SR-IOV driver detach event is detected. ONTAP will continue to use the Hyper-V netsvc driver without the SR-IOV functionality for a short time. On an HA configuration, unsynchronized logs might appear during this time, which will be resolved if a subsequent SR-IOV attach event occurs. If the SR-IOV attach event does not occur quickly, high-availability (HA) takeover might occur.

Corrective Action

(None).

Syslog Message

NIC SR-IOV driver detach event detected. On an HA configuration, unsynchronized logs might be seen or HA takeover might occur if SR-IOV driver remains detached.

Parameters

(None).

vsa.scheduledEvent.scheduled

Severity

ALERT

Description

This message occurs when the system detects that a cloud provider event has been scheduled that will result in a node rebooting or becoming unavailable. In a High-Availability (HA) configuration, only one partner will be affected.

Corrective Action

In a single-node configuration, a data-serving failure will occur for an event of type "reboot" or "rehost", and a data-serving failure or timeout might occur during a "freeze". Prepare client applications for the event. For an HA configuration, no action is required.

Syslog Message

Cloud provider event %s for node "%s". ID: %s. Type: %s. Not before: %s.

Parameters

detail (STRING): Cloud provider infrastructure might cause nodes to reboot or freeze. This happens when the provider needs to update the underlying infrastructure or move the node to a new host. Typically, the event will be detected before it happens, and information about when it might start is provided via a "not before" time. In an HA configuration, only one node in an HA pair will be affected by an event. During this time, the cluster will not be protected from a data-serving failure if the remaining HA partner goes down.
node (STRING): Node affected by the event.
event_id (STRING): Cloud-provider-specific event ID.
event_type (STRING): String "reboot", "rehost", or "freeze".
not_before_time (STRING): Timestamp in the general form: Mon, 19 Sep 2018 18:29:47 GMT If this string is empty, the event is in progress.

vsa.scheduledEvent.update

Severity

NOTICE

Description

This message occurs when the system detects that the status of a previously scheduled cloud provider maintenance event has been updated.

Corrective Action

Cloud provider infrastructure will restart the node after a "reboot" or "rehost" event, and during a "freeze" the node might restart. In any case, intervention might be required to be sure that the cluster is up and running normally.

Syslog Message

Cloud provider event %s for node "%s". ID: %s. Type: %s. Status: %s.

Parameters

detail (STRING): Cloud provider maintenance events have a lifecycle. When the event is scheduled, the "scheduled" event is raised. Subsequently, the status of the event will change state to "started" or "complete". When that is detected, this event is raised.
node (STRING): Node affected by the event.
event_id (STRING): Cloud-provider-specific event ID.
event_type (STRING): String "reboot", "rehost", or "freeze".
status (STRING): Current status of the event: "scheduled", "started", "complete".

vsa.sriov events

vsa.sriov.nic.detach

Severity

NOTICE

Description

This message occurs when ONTAP® software running in the guest virtual machine (VM) detects an SR-IOV NIC detach event. ONTAP will continue to use the Hyper-V netsvc driver without the SR-IOV functionality for a short time. On HA configurations, unsynchronized logs might appear during this time, which will be resolved if a subsequent SR-IOV attach event occurs. If the SR-IOV attach event does not occur quickly, a high-availability (HA) takeover might occur.

Corrective Action

(None).

Syslog Message

NIC SR-IOV driver detach event was detected. On HA configurations, unsynchronized logs might result, or an HA takeover might occur if SR-IOV remains detached.

Parameters

(None).

vsa.vsphere events

vsa.vsphere.connected

Severity

INFORMATIONAL

Description

This message occurs when Data ONTAP® on VMware® manages to reconnect and authenticate itself with the vSphere(tm) server.

Corrective Action

None.

Syslog Message

Authenticated connection (user %s) to vSphere server %s reestablished.

Parameters

user (STRING): vSphere "read-only" user name.
server (STRING): Host name of the vSphere server.

vsa.vsphere.noauth

Severity

ERROR

Description

This message occurs when Data ONTAP® on VMware® cannot authenticate itself to the vSphere(tm) server to gather host hardware information.

Corrective Action

Correct the vSphere server authentication information with the command 'vsphere modify'.

Syslog Message

Cannot authenticate with vSphere server: %s.

Parameters

detail (STRING): Details of how authentication failed.

vsa.vsphere.unreachable

Severity

ERROR

Description

This message occurs when Data ONTAP® on VMware® cannot connect to the vSphere(tm) server to gather host hardware information.

Corrective Action

Verify that the vSphere server is up and reachable through https: If necessary, correct vSphere server information using the command 'vsphere modify'.

Syslog Message

Cannot establish connection to vSphere server: %s.

Parameters

detail (STRING): Details of how the connection failed.

vscan events

vscan.disabled events

vscan.disabled

Severity

INFORMATIONAL

Description

This message occurs when a Vserver or cluster administrator disables Vscan on a Vserver. No subsequent client requests will trigger virus scanning.

Corrective Action

(None).

Syslog Message

Vscan is disabled on Vserver '%s'.

Parameters

vserverName (STRING): Name of the Vserver.

vscan.enabled events

vscan.enabled

Severity

INFORMATIONAL

Description

This message occurs when a Vserver or cluster administrator enables Vscan on a Vserver. Based on the configuration, subsequent client requests can trigger virus scanning.

Corrective Action

(None).

Syslog Message

Vscan is enabled on Vserver '%s'.

Parameters

vserverName (STRING): Name of the Vserver.

vscan.newversion events

vscan.newVersion.allocated

Severity

INFORMATIONAL

Description

This message occurs when the Vscan version mechanism allocates a new version-ID corresponding to the Vscan server version.

Corrective Action

(None).

Syslog Message

Vscan version mechanism added new version-ID for Vserver '%s' corresponding to vendor '%s', version '%s'.

Parameters

vserverName (STRING): Name of the Vserver.
vendor (STRING): Vscan server vendor name.
version (STRING): Vscan server version.

vscan.odjob events

vscan.odJob.delete.failed

Severity

ERROR

Description

This message occurs when the system fails to delete queued Vscan On-Demand job. The system tries to delete this job internally in a situation such as when Vserver is stopped or when a Vserver is failed over to some other cluster.

Corrective Action

Run the "vserver vscan on-demand-task unschedule" command to delete the job.

Syslog Message

System failed to delete Vscan On-Demand job for the task "%s" on Vserver "%s". Reason: "%s".

Parameters

taskName (STRING): Vscan On-Demand task name.
vserverName (STRING): Name of the Vserver.
failureReason (STRING): Reason for the failure.

vscan.odJob.running.deleted

Severity

NOTICE

Description

This message occurs when the system deletes a running On-Demand job internally.

Corrective Action

(None).

Syslog Message

System deleted a running Vscan On-Demand job. Job ID "%s".

Parameters

jobID (STRING): Job ID.

vscan.odJob.schedule.failed

Severity

ERROR

Description

This message occurs when the system fails to schedule a previously requested Vscan On-Demand job. The system tries to schedule this job internally in a situation such as when a Vserver is started or when a Vserver is failed over to some other cluster.

Corrective Action

Run the "vserver vscan on-demand-task schedule" command to schedule the job.

Syslog Message

System failed to schedule Vscan On-Demand job for the task "%s" on Vserver "%s". Reason: "%s".

Parameters

taskName (STRING): Vscan On-Demand task name.
vserverName (STRING): Name of the Vserver.
failureReason (STRING): Reason for the failure.

vscan.odreport events

vscan.odReport.create.failed

Severity

ERROR

Description

This message occurs when the On-Demand job fails to create report file.

Corrective Action

Ensure that the report directory exists and is accessible.

Syslog Message

On-Demand job for the task "%s" on Vserver "%s" could not create report file in the directory "%s". Reason: "%s".

Parameters

taskName (STRING): Vscan On-Demand task name.
vserverName (STRING): Name of the Vserver.
reportDirectory (STRING): Report directory.
failureReason (STRING): Reason for the failure.

vscan.odReport.write.failed

Severity

ERROR

Description

This message occurs when the On-Demand job fails to write to a report file.

Corrective Action

Ensure that the report file is accessible and the volume on which it resides has space.

Syslog Message

On-Demand job for the task "%s" on Vserver "%s" could not write to the report file "%s". Reason: "%s".

Parameters

taskName (STRING): Vscan On-Demand task name.
vserverName (STRING): Name of the Vserver.
reportFile (STRING): Path of the report file.
failureReason (STRING): Reason for the failure.

vscan.pool events

vscan.pool.autoActivated

Severity

INFORMATIONAL

Description

This message occurs when the Vscan scanner pool is automatically activated.

Corrective Action

(None).

Syslog Message

Vscan scanner pool '%s' is automatically activated on Vserver '%s'.

Parameters

scannerPool (STRING): Name of the scanner pool.
vserverName (STRING): Name of the Vserver.

vscan.pool.autoDeactivated

Severity

INFORMATIONAL

Description

This message occurs when the Vscan scanner pool is automatically deactivated.

Corrective Action

(None).

Syslog Message

Vscan scanner pool '%s' is automatically deactivated on Vserver '%s'.

Parameters

scannerPool (STRING): Name of the scanner pool.
vserverName (STRING): Name of the Vserver.

vscan.pool.largeReqTimeout

Severity

NOTICE

Description

This message occurs when the request timeout of a Vscan scanner pool is configured more than what can be honored for an On-Access policy whose scan-mandatory option is set to "off". The system internally adjusts the request timeout to the maximum allowed value.

Corrective Action

(None).

Syslog Message

For scanner-pool '%s' created on Vserver '%s', request-timeout is configured as %ds but that would internally be taken as %ds if the applicable On-Access policy has scan-mandatory set to "off". This ensures that the file-access is granted to the client for such policy.

Parameters

scannerPool (STRING): Name of the scanner pool.
vserverName (STRING): Name of the Vserver on which the scanner pool is configured.
requestTimeout (INT): Request timeout value configured by the user.
adjustedRequestTimeout (INT): Request timeout value that the system internally adjusts to.

vscan.privsharecreate events

vscan.privShareCreate.failed

Severity

ERROR

Description

This message occurs when the creation of privileged share ONTAP_ADMIN$ fails. Attempted connections to ONTAP_ADMIN$ share by the Vscan servers will fail.

Corrective Action

Check the reason for failure and take action accordingly. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Failed to create privileged share ONTAP_ADMIN$ for Vserver "%s". Reason: "%s".

Parameters

vserverName (STRING): Name of the Vserver.
reason (STRING): Reason for failure.

vscan.rdbupdregister events

vscan.rdbUpdRegister.failed

Severity

ERROR

Description

This message occurs when the Vscan configuration replication mechanism fails to register RDB update callback. Modifications made to the Vscan configuration might not be available to this node.

Corrective Action

Perform a takeover and giveback of the node or reboot the node. For additional options, contact NetApp technical support.

Syslog Message

Vscan configuration replication mechanism failed to register RDB update callback. Modifications made to the Vscan configuration might not be available to this node.

Parameters

(None).

vsdr events

vsdr.adtcreate events

vsdr.adtcreate.fail

Severity

ERROR

Description

This message occurs when an audit staging volume cannot be created at the destination cluster in Async-DR (asynchronous disaster recovery), either because there is not enough disk space on the aggregates or the aggregates are in offline state.

Corrective Action

If the aggregates are offline, bring them online. Ensure that each aggregate has at least 2GB of free space, adding disks, reducing volume size or moving volumes as needed, and then try the following commands: Then try the following commands: prompt> snapmirror initialize prompt> snapmirror resync

Syslog Message

Vserver audit create failed at the destination cluster with Async-DR.

Parameters

(None).

vsdr.app events

vsdr.app.cg.conflict

Severity

NOTICE

Description

This message occurs during the configuration replication phase of a Vserver DR transfer when the consistency group that the system is trying to replicate already exists in the cluster on a different Vserver.

Corrective Action

Remove the existing consistency group or make the Vserver that has the conflicting consistency group in it the destination in the Vserver DR relationship.

Syslog Message

Consistency group %s cannot be created in Vserver %s due to conflicting consistency group %s in Vserver %s.

Parameters

consistency_group (STRING): Name of the consistency group that the system is trying to replicate.
destination_vserver (STRING): Name of the destination Vserver into which the consistency group is being replicated.
conflicting_consistency_group (STRING): Name of the conflicting consistency group.
found_in_vserver (STRING): Name of the Vserver in which the conflicting consistency group was found.

vsdr.clone events

vsdr.clone.cleanup.fail

Severity

ERROR

Description

This message occurs when a clone create job fails prematurely. As result, there is a partially created clone in the cluster.

Corrective Action

Use the (privilege: diag) "debug vreport show -type volume" command to show the list of inconsistent volumes. For each of these inconsistent volumes, use the (privilege: diag) "debug vreport fix -type volume" command to resolve all of the issues. If this is a SnapMirror® or MetroCluster(tm) environment, run the "snapmirror resync" command or the "metrocluster vserver resync" command, respectively, after the inconsistencies are resolved.

Syslog Message

Clone create job failed prematurely for volume "%s" (Vserver Id %d). Reason:%s.

Parameters

volume (STRING): Name of the clone volume for which the create operation failed.
vserver_id (INT): ID of the Vserver that owns the volume.
errmsg (STRING): Error message string.

vsdr.clone.splitOnSource

Severity

ERROR

Description

This message occurs when a clone volume is split on the source Vserver in a Vserver DR setup, and a SnapMirror® transfer is initiated after this operation.

Corrective Action

Run the "volume clone split start" command to split the volume on the dp-destination Vserver. Then run the "volume delete" command to remove the volume from the dp-destination Vserver. Then run the "snapmirror resync" command on the VserverDR relationship.

Syslog Message

The volume "%s" of Vserver "%s" has been split on the source Vserver. Split the clone volume on the destination as well. After splitting, delete the volume and execute a "snapmirror resync" command.

Parameters

volume_name (STRING): Volume clone that needs to be split.
vserver_name (STRING): Vserver name for which the SnapMirror transfer has been initiated.

vsdr.clonetmp events

vsdr.clonetmp.msid.conflict

Severity

ERROR

Description

This message occurs during a SnapMirror® resync operation on a Storage Virtual Machine (SVM) disaster recovery (DR) relationship, when the MSID of a volume on the source SVM is the same as the MSID of a temporary volume on the destination SVM and the temporary volume is created for a clone parent volume. The resync operation fails to start.

Corrective Action

Split the clone volume by using the "volume clone split start" command or delete the clone volume by using the "volume delete" command, and then remove the temporary volume by using the "volume delete" command before executing another "snapmirror resync" command.

Syslog Message

The MSID of temporary clone parent volume "%s" on the destination SVM "%s" conflicts with the MSID of volume "%s" on the source".

Parameters

tmp_volume_name (STRING): Volume name of the temporary volume on the destination SVM that is a parent of a clone volume.
vserver_name (STRING): SVM name for which the SnapMirror resync was initiated.
src_volume_name (STRING): Volume name on the source SVM.

vsdr.cluster events

vsdr.cluster.sourceVersionIsHigherThanDestination

Severity

ERROR

Description

This message occurs when a source cluster of SVMDR relationship is at higher version than destination cluster.

Corrective Action

Upgrade source cluster and destination cluster to the same verion.

Syslog Message

Resync failed becuase source cluster version "%s" is higher than destination cluster version "%s"

Parameters

source_cluster_version (STRING): Version of source cluster of SVMDR relationship.
destination_cluster_version (STRING): Version of destination cluster of SVMDR relationship.

vsdr.fpvolallpolicy events

vsdr.FPVolAllPolicy

Severity

ALERT

Description

This message occurs when SnapMirror® transfer happens between the source volume of an SVM disaster recovery (SVMDR) relationship having a tiering policy of "all" residing on a FabricPool aggregate on the primary cluster and destination volume residing on a FabricPool aggregate at the secondary cluster. SnapMirror transfer will be slow and might cause recovery point objective (RPO) to be missed.

Corrective Action

Move the source volume of the SVMDR relationship from the FabricPool aggregate to a non-FabricPool aggregate at the primary cluster or modify the volume tiering policy of the source volume. To move the source volume, use the "volume move start -vserver <vserver-name> -volume <volume-name> -destination -aggregate <aggregate> command." To modify the volume tiering policy, use the "volume modify -volume <volume-name> -vserver <vserver-name> -tiering-policy <snapshot-only|none|auto>" command.

Syslog Message

SnapMirror® transfer between source volume "%s" on Vserver "%s" on a FabricPool aggregate having a tiering policy of "all" on the primary cluster and the destination volume on a FabricPool aggregate at the destination cluster will be slow.

Parameters

source_volume_name (STRING): Name of the source volume on FabricPool aggregate of SVMDR relationship.
src_vserver_name (STRING): Name of the source vserver name.

vsdr.fpvolallpolicyonfpaggr events

vsdr.FPVolAllPolicyOnFPAggr

Severity

ALERT

Description

This message occurs when source volume of an SVM disaster recovery (SVMDR) relationship having a volume tiering policy of "all" residing on FabricPool aggregate on the primary cluster is placed on a FabricPool aggregate at the destination cluster. SnapMirror® transfer will be slow and might cause recovery point objective(RPO) to be missed.

Corrective Action

Either move the source volume of the SVMDR relationship from the FabricPool aggregate to a non-FabricPool aggregate at the primary cluster or modify the volume tiering policy of the source volume. To move the source volume, use the "volume move start -vserver <vserver-name> -volume <volume-name> -destination-aggregate <aggregate> command." To modify the volume tiering policy, use the "volume modify -volume <volume-name> -vserver <vserver-name> -tiering-policy <snapshot-only|none|auto>" command.

Syslog Message

Source volume "%s" of the SVMDR relationship residing on a FabricPool aggregate having a tiering policy of "all" on the primary cluster is placed on FabricPool aggregate "%s" at the destination cluster.

Parameters

source_volume_name (STRING): Name of the source volume on the FabricPool aggregate of the SVMDR relationship.
dest_aggr_name (STRING): Name of the destination FabricPool aggregate at the secondary cluster.

vsdr.fpvoldropqospolicy events

vsdr.FPVolDropQosPolicy

Severity

NOTICE

Description

This message occurs when the system clears or drops an incompatible quality of service (QoS) policy group setting with minimum throughput value set on a destination volume having tiering policy other than "none" on a FabricPool aggregate at the destination cluster.

Corrective Action

(None).

Syslog Message

QoS policy group with minimum throughput setting cannot be set on the volume "%s" on storage virtual machine (SVM) "%s" on a FabricPool aggregate having a tiering policy other than "none".

Parameters

source_volume_name (STRING): Name of the source volume on FabricPool aggregate of SVM DR relationship.
src_vserver_name (STRING): Name of the source SVM.

vsdr.fpvolonnonfpaggr events

vsdr.FPVolOnNonFPAggr

Severity

NOTICE

Description

This message occurs when a source volume of an SVM disaster recovery (SVMDR) relationship residing on a FabricPool aggregate at the primary cluster is placed on a non-FabricPool aggregate at the secondary cluster.

Corrective Action

Move the source volume of SVMDR relationship from the FabricPool aggregate to a non-FabricPool aggregate at the primary cluster by using the "volume move start -vserver <vserver-name> -volume <volume-name> -destination-aggregate <aggregate>" command.

Syslog Message

Source volume "%s" of the SVMDR relationship residing on a FabricPool aggregate on the primary cluster is placed on a non-FabricPool aggregate "%s" at the destination cluster.

Parameters

source_volume_name (STRING): Name of the source volume on the FabricPool aggregate of the SVMDR relationship.
dest_aggr_name (STRING): Name of the destination non-FabricPool aggregate at the secondary cluster.

vsdr.invalid events

vsdr.invalid.license

Severity

ERROR

Description

This message occurs when a package is licensed at the primary site but not licensed at the secondary site in a MetroCluster(tm) configuration or Vserver DR setup.

Corrective Action

Install at the secondary site a license that is valid for the package. If this is a SnapMirror® or MetroCluster(tm) environment, run the "snapmirror resync" command or the "metrocluster vserver resync" command respectively to resynchronize the Vserver configuration.

Syslog Message

Configuration replication on vserver %s failed due to an invalid license for package %s.

Parameters

vserver_name (STRING): Name of the Vserver.
package_name (STRING): Name of the package for which the license is to be added.

vsdr.ip events

vsdr.ip.lif.auto.created

Severity

NOTICE

Description

This message occurs when a logical interface (LIF) is automatically created through configuration replication in a MetroCluster™ configuration.

Corrective Action

(None).

Syslog Message

LIF %s in Vserver %s was created on port %s on node %s.

Parameters

> **lif** (STRING): LIF name.
> **vserver_name** (STRING): Vserver name.
> **port_name** (STRING): Name of the home port of the LIF.
> **node_name** (STRING): Name of the home node of the LIF.

vsdr.ip.lif.home.changed

Severity

> NOTICE

Description

> This message occurs when the home port or node of an existing IP logical interface (LIF) is modified during LIF placement in a MetroCluster™ configuration.

Corrective Action

> (None).

Syslog Message

> Home port and node changed from %s, %s to %s, %s while placing LIF %s in Vserver %s.

Parameters

> **old_port_name** (STRING): Name of the previous home port of the existing IP LIF.
> **old_node_name** (STRING): Name of the previous home node of the existing IP LIF.
> **port_name** (STRING): Name of the current home port of the existing IP LIF.
> **node_name** (STRING): Name of the current home node of the existing IP LIF.
> **lif** (STRING): LIF name.
> **vserver_name** (STRING): Vserver name.

vsdr.missing events

vsdr.missing.clone.parent.volume

Severity

> ERROR

Description

> This message occurs when the clone parent volume does not exist during the Vserver SnapMirror®/MetroCluster(tm) baseline replication on the secondary site. Vserver SnapMirror/MetroCluster replication will be blocked until this problem is resolved, and delaying action on this problem will lead to inconsistent data on the primary and secondary sites.

Corrective Action

> Use the (privilege: diag) "debug vreport show -type volume" command on the primary site to show the list of inconsistent volumes. For each of these inconsistent volumes, use the (privilege: diag) "debug vreport fix -type volume" command to resolve all of the issues on the Vserver SnapMirror/MetroCluster primary site. After the above problem is resolved, run the "snapmirror resync/metrocluster vserver resync" command.

Syslog Message

> Parent volume for clone volume %s:%s is missing.

Parameters

vserver (STRING): Name of the Vserver.
volume (STRING): Name of the clone volume for which the corresponding parent volume is missing.

vsdr.net events

vsdr.net.IPInDiffVserver

Severity

ERROR

Description

This message occurs when the system tries to automatically replicate a logical interface (LIF) in a MetroCluster™ configuration or Vserver DR setup and the IP address of the LIF that is being created already exists in another Vserver.

Corrective Action

Change the IP address of the LIF in the other Vserver or remove the LIF so that creation of the LIF succeeds and configuration replication continues.

Syslog Message

Cannot create LIF %s with IP address %s in Vserver %s because another LIF with the same IP exists in another Vserver.

Parameters

lif (STRING): LIF name.
ipaddr (STRING): IP address of the LIF.
vserver_name (STRING): Vserver name.

vsdr.net.LifIpCollision

Severity

ERROR

Description

This message occurs in an ID-Preserve VserverDR configuration of clustered Data ONTAP®, when a non-SAN LIF created on the source Storage Virtual Machine(SVM) has the same IP address as an iSCSI LIF on the destination SVM.

Corrective Action

Assign a unique IP address for the iSCSI LIF on the destination SVM.

Syslog Message

An iSCSI LIF is configured in the destination SVM %s with the same IP address (%s) as the source LIF (%s). Assign a unique IP address to the iSCSI LIF (%s) by modifying the LIF on the destination SVM.

Parameters

vserver_name (STRING): SVM name.
ip_address (STRING): IP address of the iSCSI LIF on the destination SVM.
source_lif_name (STRING): Source LIF name.
destination_lif_name (STRING): Destination LIF name.

vsdr.net.LifNameCollision

Severity

ERROR

Description

This message occurs in an ID-Preserve VserverDR configuration of clustered Data ONTAP®, when a non-SAN LIF created on the source Storage Virtual Machine(SVM) has the same name as a SAN LIF on the destination SVM.

Corrective Action

Assign a unique LIF name for the SAN LIF on the destination SVM.

Syslog Message

A SAN LIF is configured in the destination SVM %s with the same name as the source LIF. Assign a unique name to the SAN LIF (%s) by modifying the LIF name on the destination SVM.

Parameters

vserver_name (STRING): SVM name.
lif_name (STRING): Source and Destination LIF name.

vsdr.net.LifNotReachable

Severity

ERROR

Description

This message occurs when a logical interface (LIF) modify operation is performed on the source cluster without changing the home node and home port, and the LIF placement fails when the configuration is being replicated.

Corrective Action

Ensure that the destination cluster has ports that have connectivity to the LIF on the source cluster.

Syslog Message

The LIF %s in DR partner Vserver of Vserver %s is not reachable from the local cluster.

Parameters

lif (STRING): The LIF name.
vserver_name (STRING): The Vserver name.

vsdr.net.NoPortsInBD

Severity

ERROR

Description

This message occurs when the system tries to automatically replicate a logical interface (LIF) in a MetroCluster™ configuration or Vserver DR setup, and it cannot find any ports in a broadcast domain in a cluster.

Corrective Action

Add at least one port to the broadcast domain in the IPspace using the "network port broadcast-domain add-ports" command and then resynchronize the Vserver configuration using the "metrocluster vserver resync" command.

Syslog Message

Cannot find ports in broadcast domain %s in IPspace %s for placing LIF %s in Vserver %s.

Parameters

broadcast_domain (STRING): The Broadcast domain.
ipspace_name (STRING): The IPspace name.
lif (STRING): The LIF name.
vserver_name (STRING): The Vserver name.

vsdr.net.NoPortsInIpsOnNode

Severity

ERROR

Description

This message occurs when the system tries to automatically replicate a logical interface (LIF) in a MetroCluster™ configuration or Vserver DR setup, and it cannot find any ports in an IPspace on a particular node.

Corrective Action

Add at least one port belonging to the node to the IPspace by using the "network port broadcast-domain add-ports" command and then resynchronize the Vserver configuration using the "metrocluster vserver resync" command.

Syslog Message

Cannot find ports in IPspace %s on node %s for placing LIF %s in Vserver %s.

Parameters

ipspace_name (STRING): The IPspace name.
node_name (STRING): Name of the node to which LIFs could not be replicated.
lif (STRING): The LIF name.
vserver_name (STRING): Vserver name.

vsdr.net.NoPortsInIpspace

Severity

ERROR

Description

This message occurs when the system tries to automatically replicate a logical interface (LIF) in a MetroCluster™ configuration or Vserver DR setup, and it cannot find any ports in an IPspace in a cluster.

Corrective Action

Add at least one port to the IPspace by using the "network port broadcast-domain add-ports" command and then resynchronize the Vserver configuration using the "metrocluster vserver resync" command.

Syslog Message

Cannot find ports in IPspace %s for placing LIF %s in Vserver %s.

Parameters

ipspace_name (STRING): The IPspace name.
lif (STRING): The LIF name.
vserver_name (STRING): The Vserver name.

vsdr.net.NoVipPortInIpsNode

Severity

ERROR

Description

This message occurs when the system attempts to replicate a logical interface (LIF) associated with the Virtual IP (VIP) feature to a node where no BGP peer group is available in the target IPspace. This configuration replication functionality is exercised by systems in a MetroCluster(tm).

Corrective Action

Use the "network bgp peer-group create" command to create a BGP peer group in the target IPspace on the affected node, and then use the "metrocluster vserver resync" command to recover from the failed replication.

Syslog Message

Cannot find a VIP port in IPspace %s on node %s for placing VIP LIF %s in Vserver %s.

Parameters

ipspace_name (STRING): IPspace name.
node_name (STRING): Name of the node to which VIP LIFs could not be replicated.
lif (STRING): VIP LIF name.
vserver_name (STRING): Vserver name.

vsdr.net.NoVipPortInIpspace

Severity

ERROR

Description

This message occurs when the system attempts to replicate a logical interface (LIF) associated with the Virtual IP (VIP) feature in a MetroCluster™ configuration or Vserver DR setup, and the Border Gateway Protocol (BGP) is not configured in the target IPspace.

Corrective Action

Use the "network bgp peer-group create" command to create a BGP peer group in the target IPspace, and then use the "metrocluster vserver resync" command to recover from the failed replication.

Syslog Message

Cannot find a VIP port in IPspace %s for placing VIP LIF %s in Vserver %s.

Parameters

ipspace_name (STRING): IPspace name.

lif (STRING): VIP LIF name.
vserver_name (STRING): Vserver name.

vsdr.net.v6optdisabled

Severity

ERROR

Description

This message occurs in a MetroCluster™ configuration when the system is trying to replicate an IPv6 LIF, but IPv6 is not enabled on the cluster.

Corrective Action

Enable IPv6 by using the "network options ipv6 modify -enabled true" command, and then run the "metrocluster vserver resync" command on the source cluster.

Syslog Message

Cannot create LIF %s in Vserver %s because IPv6 is not enabled in the cluster.

Parameters

lif (STRING): LIF name.
vserver_name (STRING): Vserver name.

vsdr.net.v6optdisabledroute

Severity

ERROR

Description

This message occurs when the system is trying to replicate an IPv6 route in a MetroCluster™ configuration, but IPv6 is not enabled on the cluster.

Corrective Action

Enable IPv6 by using the "network options ipv6 modify -enabled true" command, and then run the "metrocluster vserver resync" command on the source cluster.

Syslog Message

Cannot create route %s with gateway %s in Vserver %s because IPv6 is not enabled in the cluster.

Parameters

route (STRING): Route destination and mask.
gateway (STRING): Gateway of the route.
vserver_name (STRING): Vserver name.

vsdr.nonfpvolonfpaggr events

vsdr.nonFPVolOnFPAggr

Severity

NOTICE

Description

This message occurs when the source volume of an SVM disaster recovery (SVMDR) relationship residing on a non-FabricPool aggregate at the primary cluster is placed on a FabricPool aggregate at the secondary cluster.

Corrective Action

Move the source volume of the SVMDR relationship from the non-FabricPool aggregate to a FabricPool aggregate at the primary cluster by using the "volume move start -vserver <vserver-name> -volume <volume-name> -destination-aggregate <aggregate>" command.

Syslog Message

Source volume "%s" of the SVMDR relationship residing at a nonFabricPool aggregate at the primary cluster is placed on a FabricPool aggregate "%s" at the destination cluster.

Parameters

source_volume_name (STRING): Name of the source volume on the non-FabricPool aggregate of the SVMDR relationship.
dest_aggr_name (STRING): Name of the destination FabricPool aggregate at the secondary cluster.

vsdr.periodic events

vsdr.periodic.check.errors

Severity

ERROR

Description

This message occurs when the Vserver DR subsystem periodic check detects issues with the Vserver DR components. These issues could potentially result in a degraded Vserver DR relationship. So, some corrective action is required by the admin to resolve the issue.

Corrective Action

Contact NetApp technical support to identify and resolve the issues with Vserver DR components.

Syslog Message

Vserver DR check between source Vserver %s and destination Vserver %s found issues with the attribute %s.

Parameters

source_vserver (STRING): Name of the source Vserver of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.
attribute (STRING): Name of the attribute that is being checked.

vsdr.periodic.msid.preserve

Severity

ALERT

Description

Vserver DR subsystem has detected that volume MSIDs are not preserved. This would require remounting NFS clients after a DR fail-over. Such relationships may not be supported in future ONTAP releases.

Convert the relationship into an MSID preserving relationship. As part of conversion, the DR Vserver will be stopped and the volume MSIDs will be re-stamped.

Corrective Action

See the KB article https://kb.netapp.com/support/s/article/How-to-convert-DR-Relationship-into-MSID-preserving-relation for more information on how to convert the relationship into an MSID preserving one.

Syslog Message

Vserver DR: Possibly deprecated variant of Vserver DR relationship for the destination Vserver %s.

Parameters

destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.

vsdr.qos events

vsdr.QoS.MaxQoSPGs

Severity

ERROR

Description

This message occurs during QoS configuration replication in a MetroCluster(tm) setup when there are maximum number of QoS policy groups already existing on the destination cluster and the system attempts to create a new QoS policy group.

Corrective Action

Delete few QoS policy groups on the destination cluster using "qos policy-group delete" command and then resynchronize the configuration from the source cluster using "metrocluster vserver resync" command.

Syslog Message

Reached the maximum of %d QoS policy groups. Cannot create QoS policy group %s in Vserver %s.

Parameters

max_QoS_groups (INT): Maximum number of QoS policy groups.
QoS_policy_group (STRING): QoS policy group name.
vserver_name (STRING): Vserver name.

vsdr.qos.pg.conflict

Severity

NOTICE

Description

This message occurs during the configuration replication phase of a Vserver DR transfer when the Quality of Service (QoS) policy group that the system is trying to replicate already exists in the cluster on a different Vserver.

Corrective Action

Remove the existing QoS policy group or make the Vserver that already has the QoS policy group in it the destination in the Vserver DR relationship.

QoS policy group %s cannot be created in Vserver %s as the same QoS policy exists in Vserver %s.

Parameters

qos_policy_group (STRING): Name of the QoS policy group that the system is trying to replicate.
destination_vserver (STRING): Name of the destination Vserver into which the QoS policy group is being replicated.
found_in_vserver (STRING): Name of the Vserver in which the same QoS policy group was found.

vsdr.rootvol events

vsdr.rootvol.has.data

Severity

NOTICE

Description

This message occurs when the system detects that there is data in the Server Virtual Machine root volume during a disaster recovery (DR) transfer phase. Vserver DR does not protect root volumes.

Corrective Action

Move the data to a nonroot volume of the Vserver if it needs to be protected using DR.

Syslog Message

Vserver %s has data in the root volume. Vserver DR does not protect data in the root volume.

Parameters

vserver (STRING): Name of the Vserver.

vsdr.ruleaddedtosmpolicy events

vsdr.RuleAddedToSmPolicy

Severity

NOTICE

Description

This message occurs when a MAX Data® schedule update adds a new rule to a SnapMirror® policy with the "mirror-vault" type. The update is part of an SVM disaster recovery (SVMDR) relationship.

Corrective Action

(None).

Syslog Message

New rule with SnapMirror label "%s" is added to SnapMirror policy "%s" of Vserver "%s" used by the Vserver DR relationship.

Parameters

snapmirror_label (STRING): Name of the SnapMirror label.
sm_policy_name (STRING): Name of the SnapMirror policy.

vserver_name (STRING): Name of the Vserver of Vserver DR relationship.

vsdr.rulemodifiedofsmpolicy events

vsdr.RuleModifiedOfSmPolicy

Severity
ALERT

Description
This message occurs when a rule attached to a SnapMirror® policy with "mirror-vault" type must be modified, so that L2 scheduled snapshots can be reused during a MAX Data schedule update.

Corrective Action
Modify the SnapMirror policy rule by using the "snapmirror policy modify-rule -vserver <vserver-name> -policy <policy-name> -snapmirror-label<snapmirror-label-name> -preserve false" command.

Syslog Message
Rule with SnapMirror label "%s" present in SnapMirror policy "%s" on Vserver "%s" used by the Vserver DR relationship needs to be modified.

Parameters
snapmirror_label (STRING): Name of the SnapMirror label.
sm_policy_name (STRING): Name of the SnapMirror policy.
vserver_name (STRING): Name of the Vserver of Vserver DR relationship.

vsdr.schedule events

vsdr.schedule.unavailable

Severity
ERROR

Description
This message occurs when a schedule is not available on the secondary site for replication of policies for a Vserver in a MetroCluster(tm) configuration or Vserver DR setup.

Corrective Action
Create a new job schedule on the remote site that is identical to that on the source site by using the 'job schedule cron create' command. If this is a SnapMirror® or MetroCluster(tm) environment, run the "snapmirror resync" command or the "metrocluster vserver resync" command respectively to resynchronize the Vserver configuration.

Syslog Message
Configuration replication for policy "%s" in Vserver "%s" has failed because the schedule mentioned in the policy is not available.

Parameters
policy_name (STRING): Name of the policy that has a schedule that is unavailable on the secondary site.
vserver_name (STRING): Vserver name on which the policy was associated.

vsdr.vol events

vsdr.vol.aff.inline.dedup

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem does not enable inline deduplication on the destination volume. Inline deduplication is not enabled when the destination volume is on neither an AFF system nor a hybrid aggregate.

Corrective Action

If inline deduplication is required on the destination volume, move the volume to a hybrid aggregate, and then enable inline deduplication. For more information, refer to TR-4476.

Syslog Message

Vserver DR: The volume %s of the Vserver %s is on neither an AFF system nor a hybrid aggregate. Therefore, inline deduplication is not enabled on the volume.

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.

vsdr.vol.aggregateoffline

Severity

ALERT

Description

This message occurs during configuration replication, when the aggregate on which the volume needs to be created or modified is either offline or not in the cluster.

Corrective Action

Log in to the cluster and bring the aggregate online by using the "storage aggregate online" command. If the node that owns the aggregate is down, bring it back up.

Syslog Message

Configuration replication for volume "%s" in Vserver "%s" has failed because the aggregate "%s" is offline.

Parameters

volume_name (STRING): Volume on which this error occurred.
aggregate_name (STRING): Name of the aggregate.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.vol.clusterlifdown

Severity

ERROR

Description

This message occurs during configuration replication, when the the volume creation fails because the aggregate is not accessible because the cluster logical interface (LIF) is down.

Corrective Action

Log in to the source cluster and run the "network interface show" command to see the state of the cluster LIFs and to identify the down LIFs.Verify that port connectors, cabling, and cluster switch ports are correctly installed and configured.

Syslog Message

Configuration replication for volume "%s" in Vserver "%s" has failed because the cluster LIF is operationally down.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.vol.compr.mismatch

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem discovers a mismatch between the compression types of the source and destination volumes, and therefore do not apply the compression type setting of the source volume to the destination volume.

Corrective Action

Undo all off the compression savings on the destination volume, and then modify the compression type of the volume. For more information, refer to TR-4476.

Syslog Message

Vserver DR: Compression type of destination volume %s of Vserver %s is %s, which is different from the source volume compression type %s. Therefore, the compression type of the source volume was not applied on the destination volume.

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.
destination_compression_type (STRING): Compression type of the destination volume.
source_compression_type (STRING): Compression type of the source volume.

vsdr.vol.duplicate.mdv.name

Severity

ERROR

Description

This message occurs when the configuration of a metadata volume cannot be replicated because there exists another metadata volume with the same name on the destination cluster.

Corrective Action

Contact NetApp technical support to remove one of the duplicate metadata volumes.

Syslog Message

Configuration replication for metadata volume "%s" in Vserver "%s" has failed because there exists another metadata volume with the same name on the destination cluster.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Name of the Vserver for which configuration replication is happening.

vsdr.vol.encryptsrc.plaindst

Severity

ALERT

Description

This message occurs when an encrypted volume at the source of a Vserver-DR setup is replicated as a non-encrypted volume at the destination. This can happen if: 1) the key management capability is not enabled at the destination Vserver; 2) the destination Vserver does not have an aggregate that supports encrypted volumes; or 3) the volume of the source Vserver has undergone a conversion operation from non-encrypted to encrypted.

Corrective Action

If necessary, set up the key management capability at the destination by using the "security key-manager setup" command. Ensure that the destination Vserver contains an aggregate that supports encrypted volumes. Use the "snapmirror show" command to determine the type of relationship. If the displayed type is "XDP", encrypt the destination volume by performing a conversion operation from non-encrypted to encrypted using the "volume encryption conversion start" command. However, if the type is "DP", encrypt the destination volume by performing a volume move operation using the "volume move start -encrypt -destination true" command.

Syslog Message

Source volume for volume "%s" in Vserver "%s" is encrypted, but it is replicated as a non-encrypted volume at the destination.

Parameters

dest_volume_name (STRING): Name of the destination volume.
source_vserver_name (STRING): Name of the source Vserver.
dest_vserver_name (STRING): Name of the destination Vserver.

vsdr.vol.junction.clash

Severity

ERROR

Description

This message occurs when the system detects a conflict in the junction path between the volumes of a source and destination Vserver during a SnapMirror resync operation.

Corrective Action

Unmount the destination volume or mount it at a different path, and then try the operation again.

Syslog Message

Source Vserver "%s" has volume "%s" and junction path "%s" that conflicts with destination Vserver "%s", volume "%s" and the same junction path "%s". Reason: The destination volume is excluded from Vserver DR protection in the reverse direction.

Parameters

source_vserver_name (STRING): Name of the source Vserver.
src_volume_name (STRING): Name of the source volume.
src_volume_junction_path (STRING): Junction path of the source volume.
dest_vserver_name (STRING): Name of the destination Vserver.
dest_volume_name (STRING): Name of the destination volume.
dest_volume_junction_path (STRING): Junction path of the destination volume.

vsdr.vol.move.clone.child

Severity

ERROR

Description

This message occurs when a clone volume is moved in a Vserver DR setup. As a direct consequence, an implicit clone split occurs. The parent volume no longer has any relation with the child volume. Snapshots(tm) copies of the parent volume are unlocked and can get deleted, thereby affecting the SnapMirror® replication.

Corrective Action

Run "volume move" command to move the volume to the corresponding aggregate.

Syslog Message

The volume "%s" of Vserver "%s" has been moved. It is a clone volume. Move the clone volume as well.

Parameters

volume_name (STRING): Volume that has to be manually moved.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.vol.move.clone.parent

Severity

ERROR

Description

This message occurs when the parent of a clone volume is moved in a Vserver disaster-recovery (DR) configuration. If the moved volume is deleted or its Snapshot® copies are deleted, the SnapMirror® transfer fails.

Corrective Action

Run the "volume move" command to move the volume to an appropriate aggregate. If the volume was deleted at the source and the transfer failed, additionally run "snapmirror resync".

Syslog Message

The volume "%s" of Vserver "%s "has been moved. The mirroring of this volume is at risk as it is the parent of a clone volume.

Parameters

volume_name (STRING): Volume that has to be manually moved.
vserver_name (STRING): Name of the Vserver for which configuration replication is happening.

vsdr.vol.name.clash

Severity

ERROR

Description

This message occurs when the source Vserver contains a volume with the same name as one on the destination Vserver, and the volume at the destination is excluded from Vserver Disaster Recovery(DR) Protection in the reverse direction. Future resynchronization attempts might fail unless the problem is resolved.

Corrective Action

Rename the source or the destination volume, and then try the operation again.

Syslog Message

The source Vserver "%s" has a volume with name "%s" while the destination Vserver "%s" has a volume with the same name "%s" that is excluded from Vserver DR Protection in the reverse direction.

Parameters

source_vserver_name (STRING): Name of the source Vserver in a Vserver DR setup.
src_volume_name (STRING): Name of the volume on the source Vserver.
dest_vserver_name (STRING): Name of the destination Vserver in a Vserver DR setup.
dest_volume_name (STRING): Name of the volume on the destination Vserver.

vsdr.vol.noparentvolume

Severity

ERROR

Description

This message occurs when the volume that needs to be created on the destination cluster has a parent volume that did not get replicated. The possible types of volumes for which this error can occur are LS, FlexCache®, and FlexClone®.

Corrective Action

Log in to the cluster and unlock the Vserver by using "vserver unlock" command at a diag privilege level, and then create the parent volume by using the "volume create" command. Lock the Vserver by using the "vserver lock" command, and start the configuration replication with a resync.

Syslog Message

Configuration replication for volume "%s" of type %s in Vserver "%s" has failed because the parent volume for this volume has not been replicated.

Parameters

volume_name (STRING): Volume on which this error occurred.
volume_type (STRING): Type of volume. Possible values could be LS, FlexCache, or FlexClone.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.vol.nospaceinaggregate

Severity

ERROR

Description

This message occurs when there is no space left in the aggregate for new volumes to be created during configuration replication.

Corrective Action

Log in to the cluster and assign more disks to the aggregate.

Syslog Message

Configuration replication for volume "%s" in Vserver "%s" has failed because the aggregate "%s" does not have enough space.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Vserver name for which configuration replication is happening.
aggregate_name (STRING): Name of the aggregate.

vsdr.vol.nospaceinfabricpoolaggregate

Severity

ERROR

Description

This message occurs when there is no matching fabric pool aggregate found for composite source volume or not enough space left in the fabric pool aggregate for new volumes to be created during configuration replication.

Corrective Action

Log in to the cluster and assign more disks to the perf tier of fabric pool aggregate.

Syslog Message

Couldn't place volume "%s" of Vserver "%s" in fabric pool aggregate as there is no matching fabric pool aggregate found or there is not enough space left in perf tier.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.vol.protect.childmnt

Severity

ERROR

Description

This message occurs when a protected volume is mounted under an unprotected volume on the source of a Storage Virtual Machine (SVM) disaster recvoery (DR) relationship and a SnapMirror® transfer is subsequently initiated. Data continues to be served from this volume, but the volume is not protected by the DR relationship.

Corrective Action

Execute any of the following operations on the source cluster to ensure that parent and child volumes have matching protection types, and then invoke the "snapmirror resync" command. 1. Mount the volume under a protected volume. 2. Change the protection type of the parent volume in the junction-path to protected. 3. Change the protection type of the volume to unprotected. To change the protection type, use the command "volume modify -vserver vserver_name -volume volume_name -vserver-dr-protection".

Syslog Message

Unable to mount the volume %s:%s under an unprotected volume.

Parameters

vserver_name (STRING): Name of the SVM for which the SnapMirror transfer was initiated.
volume_name (STRING): Name of the volume that the system is trying to replicate on the destination SVM.

vsdr.vol.quota.off.fail

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem fails to disable quotas on the destination volume.

Corrective Action

Disable quotas on the volume by using the "volume quota off".

Syslog Message

Vserver DR: Failed to disable quotas on volume %s of Vserver %s. Reason: %s

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.
reason (STRING): Reason.

vsdr.vol.quota.on.fail

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem fails to enable quotas on the destination volume.

Corrective Action

Enable quotas on the volume by using the "volume quota on" command.

Syslog Message

Vserver DR: Failed to enable quotas on volume %s of Vserver %s. Reason: %s

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.
reason (STRING): Reason.

vsdr.vol.sg.data.compact

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem does not enable data compaction on the destination volume. Data compaction is not enabled when the destination volume space guarantee setting is not set to "none".

Corrective Action

Set the space guarantee of the volume to "none", and then enable data compaction. For more information, refer to TR-4476.

Syslog Message

Vserver DR: Volume space guarantee setting for volume %s of Vserver %s is not set to "none". Therefore, data compaction is not enabled on the volume.

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.

vsdr.vol.sg.inline.dedup

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem does not enable cross volume inline deduplication on the destination volume. Inline deduplication is not enabled when the destination volume space guarantee setting is not set to "none".

Corrective Action

Set the space guarantee of the volume to "none", and then enable cross volume inline deduplication. For more information, refer to TR-4476.

Syslog Message

Vserver DR: Volume space guarantee setting for volume %s of Vserver %s is not set to "none". Therefore, cross volume inline deduplication is not enabled on the volume.

Parameters

> **destination_volume** (STRING): Name of the destination volume of the Vserver DR relationship.
> **destination_vserver** (STRING): Name of the destination Vserver of the Vserver DR relationship.

vsdr.vol.sis.capture.fail

Severity

> ALERT

Description

> This message occurs when a Vserver DR subsystem fails to replicate the efficiency configuration from the source volume to the destination volume.

Corrective Action

> Manually enable the efficiency configuration on the destination volume. For more information, refer to TR-4476.

Syslog Message

> Vserver DR: Failed to replicate the efficiency configuration on volume %s of Vserver %s. Reason: %s

Parameters

> **source_volume** (STRING): Name of the source volume of the Vserver DR relationship.
> **source_vserver** (STRING): Name of the source Vserver of the Vserver DR relationship.
> **reason** (STRING): Reason for the failure.

vsdr.vol.sis.fail

Severity

> ALERT

Description

> This message occurs when a Vserver DR subsystem fails to apply the efficiency configuration on the destination volume.

Corrective Action

> Manually apply the efficiency configuration on the volume. For more information, refer to TR-4476.

Syslog Message

> Vserver DR: Failed to apply the efficiency configuration on volume %s of Vserver %s. Reason: %s

Parameters

> **destination_volume** (STRING): Name of the destination volume of the Vserver DR relationship.
> **destination_vserver** (STRING): Name of the destination Vserver of the Vserver DR relationship.
> **reason** (STRING): Reason.

vsdr.vol.vldboffline

Severity

> ALERT

Description

This message occurs when the volume location database (VLDB) goes offline during configuration replication. None of the volume services can commence without bringing it online.

Corrective Action

Retry the SnapMirror® operation by running the "snapmirror resync" command. If the problem persists, contact NetApp technical support.

Syslog Message

Configuration replication for volume "%s" in Vserver "%s" has failed because the VLDB is offline.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.volmov events

vsdr.volmov.msid.conflict

Severity

ERROR

Description

This message occurs during a SnapMirror® resync operation on a Storage Virtual Machine (SVM) disaster recovery (DR) relationship, when the MSID of a volume on the source SVM is the same as the MSID of a temporary volume on the destination SVM and the temporary volume is created for a volume move operation. The resync operation fails to start.

Corrective Action

Abort the volume move operation by using the "volume move abort" command, or wait for the volume move operation to finish before issuing another "snapmirror resync" command on the SVM DR relationship.

Syslog Message

The MSID of temporary volume "%s" on the destination SVM "%s" conflicts with the MSID of volume "%s" on the source.

Parameters

tmp_volume_name (STRING): Volume name of the temporary volume on the destination SVM.
vserver_name (STRING): SVM name for which the SnapMirror resync was initiated.
src_volume_name (STRING): Volume name on the source SVM.

vsdr.volmove events

vsdr.volmove.esrc.plaindst

Severity

ALERT

Description

This message occurs when a volume at the source of a Vserver-DR setup is encrypted, but the volume at

the destination is not configured to be encrypted.

Corrective Action

Verify that the intended destination aggregate supports encryption and Key Management capability is enabled. If so, make the destination volume encrypted by performing a volume move operation at the destination: "volume move start -vserver <vserver-name> -volume <volume-name> -destination-aggregate <aggregate> -encrypt-destination true".

Syslog Message

Source volume for volume "%s" in Vserver "%s" is encrypted, but the destination is not.

Parameters

dest_vserver_name (STRING): Name of the destination Vserver.
dest_volume_name (STRING): Name of the destination volume.

vsdr.volmovsrcfpnonfpaggr events

vsdr.volMovSrcFPNonFPAggr

Severity

NOTICE

Description

This message occurs when a volume move operation is executed between FabricPool and non-FabricPool aggregates on the source Vserver of an SVM disaster recovery (SVMDR) relationship.

Corrective Action

If the aggregate type hosting the volume differs at the primary and secondary clusters, move the destination Vserver of the SVMDR relationship at the secondary cluster by using the "volume move start -vserver <vserver-name> -volume <volume-name> -destination-aggregate <aggregate>" command.

Syslog Message

Source volume "%s" on Vserver "%s" of the SVMDR relationship is moved from "%s" aggregate "%s" to "%s" aggregate "%s".

Parameters

source_volume_name (STRING): Name of the source volume of the SVMDR relationship.
source_vserver_name (STRING): Name of the source Vserver of the SVMDR relationship.
src_aggr_type (STRING): Source aggregate type, either FabricPool or non-FabricPool.
source_aggr_name (STRING): Name of the source aggregate at the primary cluster.
dest_aggr_type (STRING): Destination aggregate type, either FabricPool or non-FabricPool.
dest_aggr_name (STRING): Name of the destination aggregate at the primary cluster.

vsdr.volume events

vsdr.volume.idconflict

Severity

ERROR

Description

This message occurs when the the volume to be created on the destination cluster fails because of an internal identity conflict with another volume in the system.

Corrective Action

Log in to the source cluster and delete the volume by using the "volume delete" command.

Syslog Message

Configuration replication for volume "%s" in Vserver "%s" has failed because of an internal ID conflict.

Parameters

volume_name (STRING): Volume on which this error occurred.
vserver_name (STRING): Vserver name for which configuration replication is happening.

vsdr.volume.name.conflict

Severity

ERROR

Description

This message occurs during a SnapMirror resync® operation on a Storage Virtual Machine (SVM) disaster recvoery (DR) relationship, when a new volume needs to be created on the destination SVM but another volume with the same name already exists on it, and it is also the destination of a volume-level SnapMirror relationship. The resync operation fails to start.

Corrective Action

Rename the volume on the destination SVM by using the "volume rename" command or delete it by using the "volume delete" command, and then execute another "snapmirror resync" command.

Syslog Message

The volume "%s" is already present in SVM "%s" and it is the destination of a volume-level SnapMirror relationship.

Parameters

volume_name (STRING): Name of the volume that the system is trying to replicate into the destination SVM.
vserver_name (STRING): SVM name for which the SnapMirror resync was initiated.

vsdr.volume.sis.on.fail

Severity

ALERT

Description

This message occurs when a Vserver DR subsystem fails to enable volume efficiency on the volume.

Corrective Action

Enable volume efficiency on the destination volume by using the "volume efficiency on" command. For more information, refer to TR-4476.

Syslog Message

Vserver DR: Volume efficiency configuration is not applied on volume %s of Vserver %s. Reason: %s

Parameters

destination_volume (STRING): Name of the destination volume of the Vserver DR relationship.
destination_vserver (STRING): Name of the destination Vserver of the Vserver DR relationship.
reason (STRING): Reason.

vserver events

vserver.config events

vserver.config.createDirectoryFailed

Severity

ERROR

Description

This message occurs when the Vserver create operation cannot create the Vserver-specific configuration directory.

Corrective Action

Ensure that, the root volume File System(FS) is available and has enough space to create Vserver-specific configuration directory.

Syslog Message

"Failed to create the Vserver-specific configuration directory for Vserver %s. Reason: The root volume is full or not available."

Parameters

vserver_name (STRING): Name of the Vserver.

vserver.config.nameService.createDirectoryFailed

Severity

ERROR

Description

This message occurs when Vserver-specific name-service configuration directory cannot be created.

Corrective Action

Ensure that, the root volume File System(FS) is available and has enough space to create Vserver-specific name-service configuration directory.

Syslog Message

Failed to create the Vserver-specific name-service configuration directory for Vserver %s. Reason: The root volume is full or not available.

Parameters

vserver_name (STRING): Name of the Vserver.

vserver.ipspace events

vserver.ipspace.lookupfailed

Severity

ALERT

Description

This message occurs in a MetroCluster® configuration when attempting to replicate a "vserver create" operation onto the destination cluster, but the configured IPspace cannot be found on the destination cluster. This error can occur due to networking subsystem issues on the destination cluster.

Corrective Action

The operation is retried several times. Use the "metrocluster vserver show" command to verify that the configuration state of the Vserver becomes healthy. If the configuration state does not become healthy after an hour, contact NetApp technical support for assistance.

Syslog Message

Vserver "%s" cannot be created because IPspace information related to the Vserver is not currently available.

Parameters

vserver_name (STRING): Name of the Vserver that is being replicated.

vserver.ipspace.notAvailable

Severity

ERROR

Description

This message occurs in a MetroCluster® configuration when attempting to replicate a "vserver create" operation onto the destination cluster, but the IPspace name for creation of the Vserver has not yet propagated to the destination cluster. This error can occur due to networking subsytem issues on the source cluster.

Corrective Action

The operation is retried several times. Use the "metrocluster vserver show" command to verify that the configuration state of the Vserver becomes healthy. If the configuration state does not become healthy after an hour, contact NetApp technical support for assistance.

Syslog Message

Vserver "%s" cannot be created because IPspace information related to the Vserver is not currently available.

Parameters

vserver_name (STRING): Name of the Vserver that is being replicated.

vserver.ipspace.notfound

Severity

ERROR

Description

This message occurs in a Metrocluster configuration when we are attempting to replicate a Vserver create operation on to the destination cluster and the Ipspace provided does not exist on the destination cluster.

Corrective Action

Create an Ipspace with the same name as that of the ipspace used for creating the Vserver on the source cluster.

Syslog Message

Vserver %s cannot be created as ipspace %s does not exist.

Parameters

vserver_name (STRING): Name of the vserver we are trying to replicate.
ipspace_name (STRING): Name of the ipspace on which we are trying to create the Vserver.

vserver.mcc events

vserver.mcc.repl.failed

Severity

ERROR

Description

This message occurs in a MetroCluster™ configuration when an attempt to create a Vserver on the partner cluster fails.

Corrective Action

Run the 'metrocluster vserver show' command, and follow the corrective action specified in the output.

Syslog Message

Vserver %s cannot be created on the partner cluster.

Parameters

vserver_name (STRING): Name of the Vserver.

vserver.mcc.start.failed

Deprecated

Deprecated as of version 9.2.0 as this EMS is not required.

Severity

ALERT

Description

This message occurs when a sync-destination Vserver fails to get started during a MetroCluster(tm) switchover operation or a sync-source Vserver fails to get started during a MetroCluster switchback operation.

Corrective Action

Start the Vserver which failed to get started during MetroCluster switchover/switchback.

Syslog Message

Failed to start the Vserver %s during Metrocluster switchover/switchback operation.

Parameters

vserver_name (STRING): Name of the vserver which failed to get started.

vserver.mcc.stop.failed

Deprecated

Deprecated as of version 9.2.0 as this EMS is not required.

Severity

ERROR

Description

This message occurs when a sync-destination Vserver fails to get stopped during a MetroCluster switchback operation.

Corrective Action

Stop the Vserver which failed to get stopped during MetroCluster switchback.

Syslog Message

Failed to stop the Vserver %s during MetroCluster switchback operation.

Parameters

vserver_name (STRING): Name of the vserver which failed to get stopped during MetroCluster switchback.

vserver.name events

vserver.name.conflict.local

Severity

NOTICE

Description

This message occurs when use of the "vserver rename" command creates a Vserver name conflict in the local cluster, and the local cluster resolves the name conflict by incorporating the Vserver Unique Identifier (UID) into the name. This creates a new and unique Vserver name, but that new name is not the name specified in the original rename command.

Corrective Action

None

Syslog Message

Vserver name conflict in local cluster with existing local or peer Vserver %s. Local cluster has assigned unique Vserver name %s

Parameters

vserver_name (STRING): Vserver name that caused the renaming conflict.
unique_vserver_name (STRING): Unique Vserver name that Local cluster has assigned.

vserver.name.conflict.peer

Severity

NOTICE

Description

This message occurs when use of the "vserver rename" command creates a Vserver name conflict in the peer cluster, and the peer cluster resolves the name conflict by incorporating the Vserver Unique Identifier (UID) into the name. This creates a new and unique Vserver name, but that new name is not the name specified in the original rename command.

Corrective Action

None

Syslog Message

Vserver name conflict occured in peer cluster %s with existing local or peer Vserver %s. Peer cluster has assigned unique Vserver name %s.

Parameters

peer_cluster (STRING): Peer cluster name.
vserver_name (STRING): Vserver name that caused the renaming conflict.
unique_vsname (STRING): Unique Vserver name that Peer cluster has assigned.

vserver.oper events

vserver.oper.state.down

Severity

ERROR

Description

This message occurs when the system detects a cluster reboot on a Disaster Recovery Source (MetroCluster(tm) configuration or Vserver DR). All Vservers that are a source of the disaster-recovery relationship are brought down operationally if the destination is activated. This is done to prevent an identity clash in case the Secondary site is brought up.

Corrective Action

If the destination Vservers or site are already brought up, nothing needs to be done. Otherwise, if the source is brought down, then unlock the Vservers by using the "vserver unlock" command, and then bring them up operationally by using the "vserver start" command.

Syslog Message

The Vservers on cluster %s that are in a DR relationship have been operationally brought down.

Parameters

cluster_name (STRING): Name of the source cluster.

vserver.peering events

vserver.peering.relCreated

Severity

NOTICE

Description

This message occurs when the Vserver peer relationship is established.

Corrective Action

(None).

Syslog Message

Vserver peer relationship between %s and %s is established having remote peer Vserver name %s.

Parameters

vserver (STRING): Name of the Vserver for which a peer is created.
peer_vserver_localname (STRING): Name locally used for the peer Vserver created.
peer_vserver_remotename (STRING): Actual name of the peer Vserver.

vserver.peering.relDeleted

Severity

INFORMATIONAL

Description

This message occurs when the Vserver peer relationship is deleted successfully.

Corrective Action

(None).

Syslog Message

"Vserver peer relationship between %s and %s is deleted."

Parameters

vserver (STRING): Name of the Vserver.
peer_vserver (STRING): Name of the peer Vserver.

vserver.peering.relRenamed

Severity

NOTICE

Description

This message occurs when the storage virtual machine (SVM) peer relationship is modified.

Corrective Action

(None).

Syslog Message

The SVM peer relationship between local SVM "%s" (UUID "%s") and peer SVM "%s" (UUID "%s") is modified. The peer cluster changed from "%s" (ID "%s") to "%s" (ID "%s").

Parameters

local_vserver_name (STRING): Local SVM name.
local_vserver_uuid (STRING): Local SVM universally unique identifier (UUID).
peer_vserver_name (STRING): Peer SVM name.

peer_vserver_uuid (STRING): Peer SVM UUID.
old_peer_cluster_name (STRING): Old peer cluster name.
old_peer_cluster_id (STRING): Old peer cluster ID.
new_peer_cluster_name (STRING): New peer cluster name.
new_peer_cluster_id (STRING): New peer cluster ID.

vserver.peering.relResumed

Severity

INFORMATIONAL

Description

This message occurs when the Vserver peer relationship is resumed successfully.

Corrective Action

(None).

Syslog Message

"Vserver peer relationship between %s and %s is resumed."

Parameters

vserver (STRING): Name of the Vserver.
peer_vserver (STRING): Name of the peer Vserver.

vserver.peering.relSuspended

Severity

INFORMATIONAL

Description

This message occurs when the Vserver peer relationship is suspended successfully.

Corrective Action

(None).

Syslog Message

"Vserver peer relationship between %s and %s is suspended."

Parameters

vserver (STRING): Name of the Vserver.
peer_vserver (STRING): Name of the peer Vserver.

vserver.peering.remCallFailed

Severity

ERROR

Description

This message occurs when any Vserver peering command fails because of a communication failure with a remote system.

Corrective Action

Use the "network interface show" command to verify that intercluster logical interfaces (LIFs) on both clusters are up. Use the "cluster peer health show -bypass-cache true" command to verify that cluster peering is healthy. If you want to retry a failed delete, suspend, or resume operation, consider using the "force" option, which bypasses network connectivity issues.

Syslog Message

"Vserver peering command '%s' failed. Reason: %s. Vserver peering states might be inconsistent."

Parameters

command (STRING): Vserver peering command.
reason (STRING): Reason for failure.

vserver.rbac events

vserver.rbac.alias.command

Deprecated

ONTAP now directly creates a role entry on the target of the alias.

Severity

ERROR

Description

This message occurs when a custom role associated with a Storage Virtual Machine (SVM) has an aliased command directory associated with it. SVM custom roles must be associated with actual command directories and commands, not aliases to them. The aliased commands associated with SVM custom roles will not be available under SVM context.

Corrective Action

Delete the role on the SVM, and then re-create it using the actual command.

Syslog Message

The custom role %s is associated with alias command - %s on SVM %s. Create role with actual command - %s.

Parameters

role_name (STRING): Name of the role for which creation failed.
alias_name (STRING): Name of the alias that is associated with the role.
vserver_name (STRING): Name of the SVM.
non_alias_name (STRING): Name of the actual command.

vserver.rbac.replicateRole

Severity

ERROR

Description

This message occurs when replication of a role is failed on a Vserver because the command directory associated with it is an alias.

Corrective Action

Delete the role on the source Vserver, and then re-create it using the non-alias target. Then retry the operation again.

Syslog Message

Failed to replicate the role %s associated with the alias %s on Vserver %s.

Parameters

role_name (STRING): Name of the role for which creation failed.
alias_name (STRING): Name of the alias that is associated with the role.
vserver_name (STRING): Name of the Vserver.

vserver.rename events

vserver.rename.fail.peer

Severity

ERROR

Description

This message occurs when the "vserver rename" command fails to update the peer Vserver name on the peer cluster in a Vserver peer relationship.

Corrective Action

Use the (privilege: advanced) "vserver peer repair-peer-name" command in the local cluster to update the peer Vserver name in the Vserver peer relationships present on the peer cluster.

Syslog Message

Failed to update new peer Vserver %s name on peer cluster %s.

Parameters

vserver_name (STRING): Vserver name that caused the update attempt to fail.
peer_cluster (STRING): Peer cluster name.

vserver.rootvolume events

vserver.rootVolume.full

Severity

ERROR

Description

This message occurs when there is no space left on Vserver root Volume.

Corrective Action

Increase the size of the root volume. To increase the size of the volume, run the 'volume modify' command.

Syslog Message

Vserver %s has its root volume full.

Parameters

    vserver_name (STRING): Name of the vserver with root volume full.

vserver.rootVolume.noInodes

Severity

    ERROR

Description

    This message occurs when there are no inodes are available on Vserver root volume.

Corrective Action

    Increase the size of the root volume. To increase the size of the volume, run the 'volume modify' command.

Syslog Message

    Vserver %s has no inodes in its root volume.

Parameters

    vserver_name (STRING): Name of the vserver with no inodes left in root volume.

vserver.rootVolume.offline

Severity

    ERROR

Description

    This message occurs when the Vserver root Volume is offline or not accessible for read/write operations.

Corrective Action

    Make the vserver root volume online.

Syslog Message

    Vserver %s has its root volume offline.

Parameters

    vserver_name (STRING): Name of the vserver for which the root volume is not accessible.

vserver.start events

vserver.start.failed

Severity

    ERROR

Description

    This message occurs when a 'vserver start' operation fails due to failure to start either a logical interface (LIF) or a protocol for the Vserver specified.

Corrective Action

    Ensure that the network configuration, LIF details, and protocol configurations are correct, then try to start

the Vserver again.

Syslog Message

Failed in Vserver start due to failure to start either a LIF or a protocol for the Vserver %s (UUID: %s).

Parameters

vserver_name (STRING): Name of the Vserver.
vserver_uuid (STRING): UUID of the Vserver.

vserver.start.succeeded

Severity

INFORMATIONAL

Description

This message occurs when a 'vserver start' operation succeeds.

Corrective Action

(None).

Syslog Message

Vserver %s (UUID: %s) started successfully.

Parameters

vserver_name (STRING): Name of the Vserver.
vserver_uuid (STRING): UUID of the Vserver.

vserver.stop events

vserver.stop.failed

Severity

ERROR

Description

This message occurs when a 'vserver stop' operation fails due to failure to stop either a logical interface (LIF) or a protocol for the Vserver specified.

Corrective Action

Ensure that the network configuration, LIF details, and protocol configurations are correct, then try to stop the Vserver again.

Syslog Message

Failed in Vserver stop due to failure to stop either a LIF or a protocol for the Vserver %s (UUID: %s).

Parameters

vserver_name (STRING): Name of the Vserver.
vserver_uuid (STRING): UUID of the Vserver.

vserver.stop.succeeded

Severity

INFORMATIONAL

Description

This message occurs when a 'vserver stop' operation succeeds.

Corrective Action

(None).

Syslog Message

Vserver %s (UUID: %s) stopped successfully.

Parameters

vserver_name (STRING): Name of the Vserver.
vserver_uuid (STRING): UUID of the Vserver.

vserver.storage events

vserver.storage.full

Severity

ERROR

Description

This message occurs when the Storage of Vserver is full.

Corrective Action

Increase the available size of Vserver either by raising storage-limit or by downsizing or deleting volumes.

Syslog Message

Vserver "%s" is full by consuming the storage limit "%s".

Parameters

vserver_name (STRING): Vserver name for which the storage is full.
storage_limit (STRING): The storage-limit for the Vserver.

vserver.storage.nearlyFull

Severity

ALERT

Description

This message occurs when the Vserver storage size exceeds 95% of the storage limit.

Corrective Action

Increase the available size of Vserver either by raising storage-limit or by downsizing or deleting volumes.

Syslog Message

Vserver "%s" with current storage size of "%s" has exceeded "95%%" of storage limit "%s".

Parameters

vserver_name (STRING): Vserver name for which the storage size has exceeded 95% of the storage limit.
storage_size (STRING): The storage used size of the Vserver.
storage_limit (STRING): The storage-limit for the Vserver.

vserver.storage.size.breached

Severity

NOTICE

Description

This message occurs when tenant has exceeded the capacity quota allotted to the Vserver. The checker automatically deselects this mismatch and attempts a fix. To see details including the updated size use "vserver show -fields storage-limit,storage-allocated,storage-reserved" command.

Corrective Action

(None).

Syslog Message

Vserver "%s" size "%s" has exceeded storage capacity quota of "%s".

Parameters

vserver_name (STRING): The Vserver whose size exceeded the capacity quota alloted to the tenant.
vserver_size (STRING): Vserver's size allotted up to a point to the tenant.
capacity_limit (STRING): Capacity limit allotted to the Vserver.

vserver.storage.size.mismatch

Severity

NOTICE

Description

This message occurs when the Vserver's size allotted to the tenant up to a point does not match sum of all the volume's provisioned size that can be used to enforce Vserver capacity quota. The checker automatically deselects this mismatch and attempts a fix. To see details including the updated size use "vserver show -fields storage-limit,storage-allocated,storage-reserved" command.

Corrective Action

(None).

Syslog Message

Vserver "%s" size allocated to the tenant up to a point "%s" does not match sum of all the volume's provisioned size "%s".

Parameters

vserver_name (STRING): Vserver for which the size allotted to the tenant up to a point does not match sum of all the volume's provisioned size.
vserver_size (STRING): Vserver's size allotted up to a point to the tenant.
provisioned_size (STRING): Sum of all the volume's provisioned size in Vserver.

vserver.storage.threshold

Severity

ALERT

Description

This message occurs when the Vserver storage size exceeds the storage-limit-threshold-alert value.

Corrective Action

Increase the available size of Vserver either by raising storage-limit or by downsizing or deleting volumes.

Syslog Message

Vserver "%s" with current storage size of "%s" has exceeded "%s%%" of storage limit "%s".

Parameters

vserver_name (STRING): Vserver name for which the storage size has exceeded the storage-limit-threshold-alert value.
storage_size (STRING): The storage used size of the Vserver.
storage_limit_threshold (STRING): The storage-limit-threshold-alert value of the Vserver.
storage_limit (STRING): The storage-limit for the Vserver.

vserver.volume events

vserver.volume.nonhomogen

Severity

NOTICE

Description

This message occurs when a volume is placed on nonhomogeneous aggregates, because of errors on homogeneous aggregates, such as max volumes is reached or aggregate is not home.

Corrective Action

(None).

Syslog Message

Volume "%s" in Vserver "%s" was placed on nonhomogeneous aggregate "%s".

Parameters

vserver_name (STRING): Name of the Vserver.
volume_name (STRING): Name of the Volume.
aggr_name (STRING): Name of the aggregate used for volume provisioning.

vserver.vsdr events

vserver.vsdr.adt.romode

Severity

ERROR

Description

This message occurs in Async Vserver-DR setup, when an auditing-configured Vserver is starting up in Read-Only (RO) mode.

Corrective Action

None.

Syslog Message

The Vserver %s is in Async Vserver-DR (RO) mode. Therefore, auditing cannot happen on this Vserver.

Parameters

vserver_name (STRING): Name of the Vserver that is in Async Vserver-DR (RO) mode.

vserver.vsdr.adt.supported

Severity

INFORMATIONAL

Description

This message occurs during asynchronous Vserver disaster recovery setup, when the status of Vserver-Disaster Recovery Read-Only mode of a Vserver configured for auditing is set to false when a SnapMirror® relationship breaks.

Corrective Action

None.

Syslog Message

Vserver %s is configured with auditing support in Async Vserver-Disaster Recovery setup.

Parameters

vserver_name (STRING): Name of the Vserver that is in Async Vserver-Disaster Recovery Read only mode.

wackiron events

wackiron.near events

wackiron.near.hour.limit

Severity

ERROR

Description

This message occurs when the number of hours since wafliron was last run on the specified volume is approaching its limit. If the limit is passed and the bootarg 'wackiron_enforce_panic' is true, the system will panic on the next boot.

Corrective Action

Run wafliron on the affected volume. From the boot menu, run 'wafliron'. From the dblade CLI, run 'aggr wafliron start [aggr-name]'.

Syslog Message

%s: Hours since wafliron was last run is approaching its limit. Hours remaining: %d.

Parameters

volname (STRING): Name of the aggregate.
remaining (INT): Number of hours remaining.

wackiron.near.kernel.limit

Severity

ERROR

Description

This message occurs when the number of different Data ONTAP® kernel versions used since wafliron was last run on the specified volume is approaching its limit. If the limit is passed and the bootarg 'wackiron_enforce_panic' is true, the system will panic on the next boot.

Corrective Action

Run wafliron on the affected volume. From the boot menu, run 'wafliron'. From the dblade CLI, run 'aggr wafliron start [aggr-name]'.

Syslog Message

%s: Number of different Data ONTAP kernel versions used since wafliron was last run is approaching its limit. Data ONTAP kernel version changes remaining: %d.

Parameters

volname (STRING): Name of the aggregate.
remaining (INT): Number of Data ONTAP kernel version changes remaining.

wackiron.panic events

wackiron.panic.warning

Severity

ERROR

Description

This message occurs when the bootarg 'wackiron_enforce_panic' will cause the system to panic after the next boot if you do not run wafliron on the affected volume before the completion of the next boot.

Corrective Action

Run wafliron on the affected volume. From the boot menu, run 'wafliron'. From the dblade CLI, run 'aggr wafliron start [aggr-name]'.

Syslog Message

Warning: System will panic if wafliron is not run on '%s' before the next boot is complete.

Parameters

volname (STRING): Name of the aggregate.

wackiron.past events

wackiron.past.hour.limit

Severity

ERROR

Description

This message occurs when the number of hours since wafliron was last run on the specified volume is past its limit. Because the limit was passed, if the bootarg 'wackiron_enforce_panic' is true, the system will panic on the next boot.

Corrective Action

Run wafliron on the affected volume. From the boot menu, run 'wafliron'. From the dblade CLI, run 'aggr wafliron start [aggr-name]'.

Syslog Message

%s: Number of hours since wafliron was last run on the specified volume is past its limit. Run 'wafliron' as soon as possible.

Parameters

volname (STRING): Name of the aggregate.

wackiron.past.kernel.limit

Severity

ERROR

Description

This message occurs when the number of Data ONTAP® kernel versions used since wafliron was last run on the specified volume is past its limit. Because the limit was passed, if the bootarg 'wackiron_enforce_panic' is true, the system will panic on the next boot.

Corrective Action

Run wafliron on the affected volume. From the boot menu, run 'wafliron'. From the dblade CLI, run 'aggr wafliron start [aggr-name]'.

Syslog Message

%s: Number of Data ONTAP kernel versions used since wafliron was last run on the specified volume is past its limit. Run 'wafliron' as soon as possible.

Parameters

volname (STRING): Name of the aggregate.

wafl events

wafl.32bit events

wafl.32bit.formatUnsupported

Severity

ERROR

Description

This message occurs when an aggregate or volume with a 32-bit or mixed format file system is found. These formats are unsupported in this version of Data ONTAP®, and the volume cannot be brought online.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s %s%s%s%s has an unsupported 32-bit or mixed format file system (snapshot ID %u).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot

wafl.8 events

wafl.8.0.mirror.upgrade.fail

Severity

ERROR

Description

This message occurs when WAFL® unexpectedly encounters a Data ONTAP® 8.0.x logical mirror volume during an upgrade. This logical mirror volume should have been deleted prior to the upgrade.

Corrective Action

Avoid this event by destroying all Data ONTAP 8.0.x logical mirror volumes prior to the upgrade. This event resulted in the volume being marked offline, corrupt, and unrecoverable. Because the current version of Data ONTAP does not support logical mirror volume, the volume cannot be recovered by file system repair mechanisms such as wafliron and cannot be brought online.

Syslog Message

Data ONTAP 8.0.x mirror (type %d) cannot be upgraded by the current version of Data ONTAP. Logical mirror volume '%s' was marked offline, corrupt, and unrecoverable. Read the upgrade notes for this release. Such volumes should be deleted prior to the upgrade.

Parameters

> **type** (INT): Mirror type in Data ONTAP 8.0.x.
> **vol** (STRING): Volume name.

wafl.access events

wafl.access.fenced.file

Severity

> NOTICE

Description

> This message occurs when the user attempts to access a fenced file. Depending on the type of fence, reads and/or writes will not be permitted for the file.

Corrective Action

> (None).

Syslog Message

> The file with inode %d on volume %s cannot be accessed because it is fenced by %s operation.

Parameters

> **fid** (INT): Inode number of the fenced file.
> **vol** (STRING): Name of the volume that contains the fenced file.
> **owner** (STRING): Name of the operation that fenced the file.

wafl.afs events

wafl.afs.first.disabled

Severity

> NOTICE

Description

> This message occurs when the deswizzle scanner fails to enable the wafl.deswizzle.afs.first feature on the aggregate because block reallocation redirection cannot be enabled on the aggregate. The deswizzle scanner will run without the wafl.deswizzle.afs.first feature for any volume in the aggregate.

Corrective Action

> (None).

Syslog Message

> afs.first option cannot be enabled on aggregate %s, for volume %s because it is not possible to enable block reallocation on the aggregate.

Parameters

> **aggr** (STRING): Aggregate name.
> **vol** (STRING): Volume name.

wafl.aggr events

wafl.aggr.addup.offline

Severity

ERROR

Description

This message occurs when an aggregate is taken offline due to the aggregate has savings because of aggregate deduplication and this version of ONTAP does not support aggregate level deduplication.

Corrective Action

Confirm that a version of Data ONTAP which supports aggregate level deduplication is in use.

Syslog Message

Aggregate name:'%s' has aggregate level deduplication enabled. It is not supported in current Data ONTAP version and was taken offline.

Parameters

name (STRING): Aggregate name.

wafl.aggr.arl.callbacks

Severity

NOTICE

Description

This message occurs during an aggregate relocation operation, when the system ignores outstanding oplock recalls so that the relocation can progress.

Corrective Action

(None).

Syslog Message

Ignoring %d locks during aggregate relocation of %s %s%s%s%s.

Parameters

count (INT): Number of ignored locks.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the aggregate.
aggr (STRING): Name of the aggregate.
app (STRING): Application UUID.
aggrident (STRING): Unique identifier of the aggregate in case the aggregate name itself is insufficient.

wafl.aggr.btiddb.build

Severity

INFORMATIONAL

Description

This message occurs at the completion of an aggregate buftreeid database construction. It records the time spent, inode scanned, msg restart count, and the result.

Corrective Action

(None).

Syslog Message

Buftreeid database for aggregate '%s' UUID '%s' was built in %llu msec, after scanning %d inodes and restarting %d times with a final result of %s.

Parameters

aggrName (STRING): Name of the aggregate.
uuid (STRING): UUID of the aggregate.
buildtime (LONGINT): Total time taken for buftreeid database construction.
inodes (INT): Total inodes seen for buftreeid database construction.
restarts (INT): Number of message restarts for buftreeid database construction.
success (STRING): Whether the constructino was a success or failure.

wafl.aggr.crt.offline

Severity

ERROR

Description

This message occurs when an aggregate is taken offline due to the aggregate was migrated from 7-Mode controller and this version of ONTAP does not support aggregate transition.

Corrective Action

Confirm that a version of Data ONTAP which supports 7-mode controller migration is in use.

Syslog Message

Aggregate name:'%s' UUID: '%s' was migrated from 7-Mode controller. It is not supported in current Data ONTAP version and was taken offline.

Parameters

name (STRING): Aggregate name.
UUID (STRING): Aggregate UUID.

wafl.aggr.dump.metadir.rm

Severity

INFORMATIONAL

Description

This message occurs when the system cannot remove the dump metadirectory, which was created by a backup job for a mirror. The dump metadirectory is created on the aggregate where the mirror resides, because mirrors are RO volumes. The metadirectory is per-session, which means that the metadirectory is removed at the end of every normal backup. Therefore, the metadirectory will be deleted the next time a backup of the same volume is completed normally.

Corrective Action

(None).

Syslog Message

Could not remove %s in aggregate %s for volume %s with UUID %s: %s

Parameters

path (STRING): Path of the dump metadirectory.
aggr (STRING): Aggregate where the dump metadirectory resides.
vol (STRING): Volume that the dump metadirectory was created for.
voluuid (STRING): UUID of the volume that the dump metadirectory was created for.
err (STRING): Error indicating why the deletion of the dump metadirectory failed.

wafl.aggr.giveback.callbacks

Severity

NOTICE

Description

This message occurs during a giveback operation, when the system ignores outstanding oplock recalls so that the giveback can progress.

Corrective Action

(None).

Syslog Message

Ignoring %d locks when giving back %s %s%s%s%s.

Parameters

count (INT): Number of ignored locks.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the aggregate.
aggr (STRING): Name of the aggregate.
app (STRING): Application UUID.
aggrident (STRING): Unique identifier of the aggregate in case the aggregate name itself is insufficient.

wafl.aggr.giveback.times

Severity

INFORMATIONAL

Description

Issued upon successful completion of giveback of an SFO HA-policy aggregate to record sub-phase timings for different phases of wafl giveback.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggrName (STRING): The name of the Aggregate.
timesString (STRING): Report of sub phase times in SHCommit_wafl routine.

wafl.aggr.hya.eviction.fail

Severity

ERROR

Description

This message occurs when Flash Pool (tm) eviction cannot remove or update a read-cached block due to the corruption of its metadata.

Corrective Action

Run wafliron on the containing aggregate to correct the Flash Pool metadata. For more information or assistance, contact NetApp technical support.

Syslog Message

Eviction for aggregate %s found mismatch for SSD pvbn %llu, HDD pvbn %llu, found SSD pvbn %llu.

Parameters

aggr (STRING): Aggregate name.
expected_ssd_pvbn (LONGINT): SSD block number expected in the cache metadata for the original block.
hdd_pvbn (LONGINT): HDD block number of the original block.
cachemap_ssd_pvbn (LONGINT): SSD block number found in the cache metadata for the original block.

wafl.aggr.hya.full.high

Severity

ERROR

Description

This message occurs when a hybrid aggregate unexpectedly runs low on SSD free space. Contact NetApp technical support.

Corrective Action

(Call support).

Syslog Message

Hybrid aggregate %s SSD free space unexpectedly ran critically low. Contact NetApp technical support.

Parameters

vol (STRING): Hybrid aggregate name.

wafl.aggr.hya.full.low

Severity

ERROR

Description

This message occurs when a hybrid aggregate unexpectedly runs low on SSD free space. Contact NetApp technical support.

Corrective Action

(Call support).

Syslog Message

Hybrid aggregate %s SSD free space unexpectedly ran low. Contact NetApp technical support.

Parameters

vol (STRING): Hybrid aggregate name.

wafl.aggr.mcc.callbacks

Severity

NOTICE

Description

This message occurs during a MetroCluster(tm) aggregate switchback operation, when the system ignores outstanding oplock recalls, which can take a long time. This is to allow the switchback operation to make progress.

Corrective Action

(None).

Syslog Message

Ignoring recalling %d locks for aggregate %s %s%s%s%s, so that the MetroCluster switchback can make progress.

Parameters

count (INT): Number of ignored locks.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the aggregate.
aggr (STRING): Name of the aggregate.
app (STRING): Application UUID.
aggrident (STRING): Unique identifier of the aggregate in case the aggregate name itself is insufficient.

wafl.aggr.nospc.del.snapshot

Severity

NOTICE

Description

This message occurs when snapshots of an aggregate are autodeleted to free up space for newer writes.

Corrective Action

(None).

Syslog Message

Autodeletion of snapshots for aggregate "%s" was triggered due to: %s. Available space: %d%%, space

used by snapshots: %d%%.

Parameters

aggr (STRING): Name of the aggregate.
reason (STRING): The reason why autodeletion of snapshots was triggered.
avail_pct (INT): Percentage of available space in the aggregate.
snap_used_pct (INT): Percentage of space used by snapshots in the aggregate.

wafl.aggr.overcommitted.vsm

Severity

ERROR

Description

This message occurs when there is not enough free space in the aggregate to guarantee free space in all the SnapMirror® destinations.

Corrective Action

Increase the free space in the aggregate by shrinking existing FlexVol(tm) volumes or adding more disk space.

Syslog Message

Not enough free space in aggregate %s to guarantee free space in all SnapMirror destinations.

Parameters

aggr_name (STRING): Aggregate name.

wafl.aggr.recompact.complete

Severity

INFORMATIONAL

Description

This message occurs when the "aggr recompact " scanner has finished.

Corrective Action

(None).

Syslog Message

%s scanner finished on %s %s%s%s%s. %s tried on %ld blocks.

Parameters

opname (STRING): Opname for the scanner.
voltype (STRING): Volume type on which scanner was run.
aggr_owner (STRING): Owner of the volume.
aggr_name (STRING): Volume name.
app (STRING): Application UUID.
uuid (STRING): Volume uuid .
opname1 (STRING): Opname for the scanner.
val (LONGINT): Number of vbns acted on.

wafl.aggr.recompact.estimate

Severity

INFORMATIONAL

Description

This message occurs when the "aggr recompact analyze" command has finished and anaylzed how many compacted blocks are worth recompacting.

Corrective Action

(None).

Syslog Message

Recompact analyze scan finished on aggregate %s%s. Block fragmentation distribution is [%ld%%, %ld%%, %ld%%, %ld%%] for %llu compacted blocks. Average compaction ratio for the aggregate is %lu.%02lu:1 approximately.

Parameters

aggr_owner (STRING): Owner of the aggregate.
aggr_name (STRING): Aggregate name.
val_low (LONGINT): Percentage of blocks less than 25% full.
val_mid (LONGINT): Percentage of blocks less than 50% full.
val_high (LONGINT): Percentage of blocks less than 75% full.
val_full (LONGINT): Percentage of blocks greater than 75% full.
val_total (LONGINT): Total number of compacted blocks.
avg_compaction (LONGINT): Average compaction ratio.
avg_compaction1 (LONGINT): Average compaction ratio.

wafl.aggr.relocation.times

Severity

INFORMATIONAL

Description

This message occurs when an aggregate relocation is complete to record timing information about the relocation process.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggrName (STRING): Name of the aggregate.
timesString (STRING): Report of aggregate relocation phase timing.

wafl.aggr.reserve.set

Severity

NOTICE

Description

This message occurs during mounting a volume, boot or takeover/giveback. This message indicates that the aggregate reserve was set to the saved value.

Corrective Action

(None).

Syslog Message

Aggregate reserve for aggregate %s was set to %d.

Parameters

aggr (STRING): Name of the aggregate.
value (INT): New aggregate reserve.

wafl.aggr.reserve.short

Severity

ERROR

Description

This message occurs when we try to set an aggregate reserve. This message indicates that there is not enough space to honor the saved value of aggregate reserve.

Corrective Action

Try creating space in the aggregate by shrinking or destroying volumes, adding disks or changing the guarantee type of volumes in the aggregate to NONE

Syslog Message

Aggregate reserve for aggregate %s could not be set as we are short by %s.

Parameters

aggr (STRING): Name of the aggregate.
short_by (STRING): How much disk space we are short by.

wafl.aggr.rsv.low.nomount

Severity

EMERGENCY

Description

This message occurs when an aggregate consumes almost all of its free space reserve and should not be brought back online without assistance from technical support to address the free space issue.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failing mount of aggregate %s. Free space reserve is too low. Contact NetApp technical support for assistance.

Parameters

    aggr (STRING): Aggregate name.

wafl.aggr.snapReserve

Severity

    NOTICE

Description

    This message occurs when the system boot process detects that the aggregate snapshot spill percentage has been modified by bootargs.

Corrective Action

    (None).

Syslog Message

    Aggregate snapshot spill percentage is set to %d%%.

Parameters

    aggr_snap_spill_pct (INT): Aggregate snapshot spill percentage.

wafl.aggr.uncompact.complete

Severity

    INFORMATIONAL

Description

    This message occurs when the "aggr uncompact " scanner has finished.

Corrective Action

    (None).

Syslog Message

    Uncompact scanner finished on %s %s%s%s%s. Uncompacted %ld blocks.

Parameters

    voltype (STRING): Volume type on which scanner was run.
    aggr_owner (STRING): Owner of the volume.
    aggr_name (STRING): Volume name.
    app (STRING): Application UUID.
    uuid (STRING): Volume uuid .
    val (LONGINT): Number of vbns acted on.

wafl.aggr.uncompact.rep.error

Severity

    ERROR

Description

    This message occurs when the "aggr uncompact scan" command fails to uncompact some blocks because of RAID errors. The system cannot be restored to the previous release until the problem is corrected.

Corrective Action

Uncompaction of blocks with RAID errors can be done safely only on flex volumes. Run the "vol efficiency undo -data-compaction" command on the flex volume that reported RAID errors.

Syslog Message

RAID errors found when uncompaction scan was run on aggregate %s%s. Run uncompaction scan on flex volume %s.

Parameters

aggr_owner (STRING): Owner of the aggregate.
aggr_name (STRING): Aggregate name.
vvol_name (STRING): Flex volume name.

wafl.aggr.uncompact.skipped

Severity

NOTICE

Description

This message occurs when uncompact scanner has to abort due to some error conditions.

Corrective Action

(None).

Syslog Message

Skipping uncompact scan on aggregate %s. Volume %s encountered error %d.

Parameters

aggr_name (STRING): Aggregate name.
vvol_name (STRING): Flex volume name.
error_code (INT): Error code for the abort.

wafl.aggregate events

wafl.aggregate.busy

Severity

NOTICE

Description

This message occurs when an operation is run on an aggregate while the aggregate or any volume of the aggregate is busy. The message prints the reason for aggregate or volume being busy.

Corrective Action

(None).

Syslog Message

%s: %s '%s' is busy. Reason: %s.

Parameters

> **operation** (STRING): Name of the operation.
> **voltype** (STRING): Aggregate or volume.
> **aggrname** (STRING): Aggregate or volume name.
> **reason** (STRING): Reason for the aggregate or volume being busy.

wafl.aggregate.online.phases

Severity

> INFORMATIONAL

Description

> Issued upon successful completion of aggregate online to record the sub-phase times for different phases of online.

Corrective Action

> (None).

Syslog Message

> (None).

Parameters

> **aggrName** (STRING): The name of the Aggregate.
> **uuid** (STRING): The UUID of the Aggregate.
> **phase1** (LONGINT): Total time taken for aggregate online phase1.
> **phase2** (LONGINT): Total time taken for aggregate online phase2.
> **phase3** (LONGINT): Total time taken for aggregate online phase3.

wafl.aggregate.online.replay

Severity

> INFORMATIONAL

Description

> Issued upon aggr online nvlog replay completion.

Corrective Action

> (None).

Syslog Message

> (None).

Parameters

> **aggrName** (STRING): The name of the Aggregate.
> **uuid** (STRING): The UUID of the Aggregate.
> **time** (LONGINT): Total time taken for nvlog replay.

wafl.aggrtrans events

wafl.aggrtrans.corrupted

Severity

ALERT

Description

This message occurs when an aggregate transition operation encounters a corrupted aggregate.

Corrective Action

Delete the corrupted aggregate in maintenance mode. Alternatively, return the disks to a 7-Mode environment to fix the corrupted aggregate.

Syslog Message

Aggregate transition encountered a corrupted aggregate %s.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.dirtyFS

Severity

NOTICE

Description

This message occurs when an aggregate transition operation fails because the aggregate was not cleanly shut down.

Corrective Action

Retry the aggregate transition to bypass this specific error. Alternatively, return the disks to a 7-Mode environment, cleanly shut down the system, and then try the transition again.

Syslog Message

Aggregate %s was not cleanly shut down and could not be transitioned.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.dirtyFS.cont

Severity

NOTICE

Description

This message occurs when an aggregate transition continues to operate on an aggregate that was not cleanly shut down.

Corrective Action

(None).

Syslog Message

Aggregate %s was not cleanly shut down and is continuing transition.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.outofspace.nodereboot

Severity

ALERT

Description

This message occurs when a transitioned aggregate reaches a space limitation during the precommit phase and cannot be taken offline. The node is automatically rebooted to ensure that data integrity is preserved. After the reboot, the aggregate is online and its FlexVol® volumes are offline.

Corrective Action

Add disks to the aggregate to ensure that enough free space is available. Alternatively, commit the current transition session.

Syslog Message

Transitioned aggregate %s is critically low on available space, initiating node reboot.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.outofspace.normal

Severity

NOTICE

Description

This message occurs when a previously full transitioned aggregate contains enough free space and is back to normal operation.

Corrective Action

(None).

Syslog Message

Transitioned aggregate %s now contains enough free space and is now back to normal.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.outofspace.offline

Severity

EMERGENCY

Description

This message occurs when a transitioned aggregate reaches a space limitation during the precommit phase and is taken offline.

Corrective Action

Add disks to the aggregate to ensure that enough free space is available. Alternatively, commit the current transition session.

Syslog Message

Transitioned aggregate %s is critically low on available space, going offline.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.outofspace.remount.needed

Severity

NOTICE

Description

This message occurs when a previously full transitioned aggregate is online and must be remounted to bring its volumes back online.

Corrective Action

Take offline the transitioned aggregate, and then bring online the aggregate again to bring its volumes back online.

Syslog Message

Transitioned aggregate %s must be remounted (offline and online) to bring its volumes back online.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.outofspace.warn

Severity

ERROR

Description

This message occurs when a transitioned aggregate is low on free space. The message is periodically displayed before the aggregate goes offline due to being out of space.

Corrective Action

Add disks to the aggregate to resume normal operations. Alternatively, commit the current transition session.

Syslog Message

Pre-commit transitioned aggregate %s is low on free space at about %d percent used.

Parameters

aggrname (STRING): Name of the aggregate.
percent (INT): Percentage of aggregate that is used.

wafl.aggrtrans.revert.to.snap

Severity

NOTICE

Description

This message occurs when an aggregate transition operation fails because the aggregate is set to revert to a snapshot.

Corrective Action

Return the disks to a 7-Mode environment, bring the aggregate online to finish restoring to the snapshot, and then try the transition again.

Syslog Message

Aggregate %s is reverting to a snapshot and cannot be transitioned.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.aggrtrans.snap.delErr

Severity

ERROR

Description

This message occurs when an aggregate transition commit operation fails to delete the pinned snapshot.

Corrective Action

Manually delete the pinned snapshot using the node scoped command "snap delete -A". If manual deletion fails, contact technical support.

Syslog Message

Aggregate transition commit operation fails to delete the pinned snapshot "%s" on aggregate %s. Error: %s.

Parameters

name (STRING): Name of the snapshot.
aggrname (STRING): Name of the aggregate.
err (STRING): Error description.

wafl.aggrtrans.snapshot.32b

Severity

ERROR

Description

This message occurs when an aggregate transition fails due to detection of a 32-bit snapshot on the transition aggregate.

Corrective Action

Retry aggregate transition using "-ignore-errors" parameter to automatically delete all the 32-bit snapshots as part of aggregate transition.

Syslog Message

Aggregate transition failed due to unsupported 32-bit snapshots on aggregate %s uuid %s.

Parameters

aggrname (STRING): Name of the aggregate.
aggruuid (STRING): Unique identifier of the aggregate.

wafl.air events

wafl.air.info

Severity

ERROR

Description

Generic wafl air message

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The message from AIR module

wafl.analytics events

wafl.analytics.air.uh

Severity

ALERT

Description

This message occurs when the system detects an inconsistency in the file system analytics database. As a consequence, file system analytics has been disabled.

Corrective Action

Turn file system analytics on again for the volume to initiate new consistent analytics.

Syslog Message

The system detected an inconsistency in the file system analytics database associated with volume %s%s.

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).

wafl.analytics.corruption

Severity

ALERT

Description

This message occurs when a file system analytics record is corrupted. Instances of this message indicate low accuracy of the analytics data reported for the volume.

Corrective Action

Please contact NetApp technical support for assistance.

Syslog Message

A file system analytics record identified by analytics filehandle "%s" on the volume with DSID "%lu" was corrupted due to an unexpected error.

Parameters

afh (STRING): Key identifies the corrupted file system analytics record.
dsid (LONGINT): DSID of the volume affected by the corrupted record.

wafl.analytics.discardNotOk

Severity

ERROR

Description

This message occurs when the analytics subsystem discards a pending reminder work request due to an internal error. Repeated instances of this message indicate low accuracy of the analytics data reported for the volume.

Corrective Action

Taking the volume offline and bringing it back online might resolve the issue. Find the name of the Vserver and volume using the "volume show -dsid <dsid>" command. Take the volume offline using the "volume offline" command, and then bring it back online by using the "volume online" command. If the problem persists or further assistance is needed, contact NetApp technical support.

Syslog Message

An analytics reminder work request was discarded due to an unexpected error. The corresponding volume DSID is "%lu". The error returned was: %s

Parameters

dsid (LONGINT): Data set ID (DSID) of the volume affected by the discarded reminder work request.
error (STRING): Error returned by reminder processing.

wafl.analytics.enterOverload

Severity

NOTICE

Description

This message occurs when the analytics subsystem is not keeping up with the amount of work being generated by the system. This could be an indication of an overloaded system in general. Analytics

accounting might lag, and reported data might not be as current as the data that the subsystem usually reports.

Corrective Action

The system should attempt to resolve the problems by itself. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

The analytics subsystem is not keeping up with the amount of work being generated by the system.

Parameters

(None).

wafl.analytics.exitOverload

Severity

NOTICE

Description

This message occurs when the analytics subsystem is performing normally and has caught up with its pending work.

Corrective Action

(None).

Syslog Message

The analytics subsystem is performing normally.

Parameters

(None).

wafl.analytics.init.fail

Severity

ALERT

Description

This message occurs when a volume fails to have a file system analytics database initialized.

Corrective Action

Disable then re-enable file system analytics for the volume. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

Failed to initialize a file system analytics database for volume %s%s, %s.

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
error (STRING): Error message.

wafl.analytics.languishing

Severity

ALERT

Description

This message occurs when the analytics subsystem is unable to make progress, which could be an indication of an unhealthy node or a larger systemic issue.

Corrective Action

NetApp technical support

Syslog Message

The analytics subsystem has languished for more than 900 seconds.

Parameters

(None).

wafl.analytics.offErr

Severity

ALERT

Description

This message occurs when file system analytics fails to turn off. This can cause incorrect file system analytics results.

Corrective Action

Use the "volume show -dsid <dsid>" command to find the volume on which file system analytics failed to turn off, and then use the "volume analytics off" command to attempt to turn off file system analytics. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

File system analytics failed to turn off on the volume with DSID "%lu". Error: %d. Context: %s.

Parameters

dsid (LONGINT): Data Set ID (DSID) of the volume on which file system analytics failed to turn off.
error (INT): Error code returned when file system analytics failed to turn off.
context (STRING): Which operation attempted to turn off the file system analytics.

wafl.analytics.recover

Severity

ALERT

Description

This message occurs when a volume fails to recover the File System Analytics state after failing to start the initialization scanner. As a consequence, File System Analytics information might be unavailable or might not accurately reflect the volume's content.

Corrective Action

Use the "volume analytics off" command to disable File System Analytics on the volume, and then use the "volume analytics on" command to enable File System Analytics. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

The File System Analytics state for volume DSID (%lu) was not recovered after the initialization scanner failed to start. Reason: %s.

Parameters

dsid (LONGINT): Unique identifier (DSID) of the volume.
error (STRING): Error message.

wafl.analytics.rename.scan

Severity

NOTICE

Description

This message occurs when a rename scan starts while file system analytics is in the "initializing" state. Rename scans can occur to update the file system analytics database when a multipart inode or a directory is renamed or relocated to a different directory.

Corrective Action

(None).

Syslog Message

A file system analytics rename scan has been initiated for the rename of a %s identified by file system analytics filehandle "%s" on the volume with DSID "%lu".

Parameters

file_type (STRING): Identifies whether the scan is initiated for a multipart inode or a directory.
fh (STRING): Filehandle of the multipart inode or directory that is being renamed.
dsid (LONGINT): Data Set ID (DSID) of the volume the multipart inode or directory that is being renamed belongs to.

wafl.analytics.rescan

Severity

ALERT

Description

This message occurs when the system detects an inconsistency in the file system analytics database. As a consequence, file system analytics information might be unavailable or might not accurately reflect the volume's content.

Corrective Action

Turn file system analytics off and then on again for the volume. If problems persist or further assistance is needed, contact NetApp technical support.

The system detected an inconsistency in the file system analytics database associated with volume %s%s.

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).

wafl.analytics.scan.fail

Severity

ALERT

Description

This message occurs when the "volume analytics on" command fails due to an internal error.

Corrective Action

Resolve the error if possible. Disable File System Analytics using the "volume analytics off" command and then re-enable File System Analytics using the "volume analytics on" command. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

File System Analytics scan fails for volume "%s%s. Error: %s".

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
error (STRING): Error message.

wafl.analytics.sp.valid.fail

Severity

ERROR

Description

This message occurs when enabling file system analytics on a volume fails because there is insufficient space in the volume.

Corrective Action

Increase the volume size or free up space on the volume. Use the "volume modify" command to increase volume size.

Syslog Message

Enabling file system analytics on %s "%s" in SVM "%s" with "%s" %s fails because there is insufficient free space.

Parameters

volDesc (STRING): In this message a volume that has not transitioned is described as a "volume".
volName (STRING): Volume name.
vserverName (STRING): Name of the storage virtual machine (SVM) on which the volume resides.
percentUsed (STRING): Percentage of used space in the volume.
usageDesc (STRING): Contains "usage" for a FlexVol volume, and "usage in one of the FlexGroup volume

constituents" for a FlexGroup volume.

wafl.analytics.sp.valid.skip

Severity
NOTICE

Description
This message occurs when enabling file system analytics on the volume fails because there is insufficient space in the volume. The enablement is allowed because the "-skip-space-validation" parameter is specified.

Corrective Action
Increase the volume size or free up space on the volume. Use the "volume modify" command to increase volume size.

Syslog Message
Enabling file system analytics on volume "%s" in SVM "%s" skips the space validation.

Parameters
volName (STRING): Volume name.
vserverName (STRING): Name of the storage virtual machine (SVM) on which the volume resides.

wafl.analytics.state.change

Severity
NOTICE

Description
This message occurs when the file system analytics state has been changed on a volume.

Corrective Action
(None).

Syslog Message
The file system analytics state of volume "%s%s" (DSID: "%lu") has changed to "%s". Reason: %s. Rulegen: %lu.

Parameters
volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
dsid (LONGINT): Unique identifier (DSID) of the volume.
state (STRING): File system analytics state: on or off.
reason (STRING): The reason that the file system analytics state was changed.
rulegen (LONGINT): File system analytics rules generation number.

wafl.analytics.tooMuchMemory

Severity
ALERT

Description

This message occurs when the analytics subsystem has an excessive amount of pending work, causing memory usage to be higher than expected.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

Reminder table size is "%lu", which is above the design limit of "%lu". System memory: "%lu". Time since last merge: "%lu".

Parameters

tablesize (LONGINT): Current size of analytics subsystem reminder table.
limit (LONGINT): Design limit size of analytics subsystem reminder table.
system_memory (LONGINT): Total system memory on this node.
last_merge (LONGINT): Milliseconds since the analytics subsystem last processed a work request.

wafl.analytics.tz.changed

Severity

ERROR

Description

This message occurs when the system timezone is changed while file system analytics is enabled on the node. As a consequence, file system analytics information might not accurately reflect the volume's content.

Corrective Action

Use the "volume analytics show -state on" command to find the volumes with file system analytics enabled, then use the "volume analytics off" and "volume analytics on" commands for each volume where file system analytics is enabled.

Syslog Message

The system timezone has been changed while file system analytics is enabled.

Parameters

(None).

wafl.analytics.updateDiscard

Severity

ALERT

Description

This message occurs when a file system analytics update is discarded. Instances of this message indicate low accuracy of the analytics data reported for the volume.

Corrective Action

Turning file system analytics off and turning it back on again might resolve the issue. Find the name of the Vserver and volume using the "volume show -dsid <dsid>" command. Turn file system analytics off using the "volume analytics off" command, and then turn it back on by using the "volume analytics on" command. If the problem persists or further assistance is needed, contact NetApp technical support.

Syslog Message

A file system analytics update was discarded due to an unexpected error. Analytics filehandle "%s" on the volume with DSID "%lu" was to be updated by file operation "%s".

Parameters

fh (STRING): File handle that the operation targeted.
dsid (LONGINT): DSID of the volume affected by the discarded update.
operation (STRING): Operation that was being performed when this error occurred.

wafl.ap events

wafl.ap.info

Severity

NOTICE

Description

adaptive playlist message

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The message from wafl adaptive playlist

wafl.arl events

wafl.arl.vol.limitChkFailed

Severity

ERROR

Description

This message occurs during the relocation of an aggregate, when the destination node fails the volume count limit and volume size limit checks.

Corrective Action

Ensure that the destination node supports the volume size and volume count limits, or select a different destination node and retry the operation.

Syslog Message

Aggregate '%s': Volume limits check failed on destination node %s.

Parameters

vol (STRING): Name of the aggregate.
reason (STRING): Activity that is preventing the aggregate relocation operation.

wafl.asserts events

wafl.asserts.disabled

Severity

INFORMATIONAL

Description

This message occurs on development kernels when some of the asserts are disabled.

Corrective Action

(None).

Syslog Message

Warning: Some of the asserts are disabled on the filer.

Parameters

(None).

wafl.atime events

wafl.atime.updates.restarted

Severity

NOTICE

Description

This message occurs when the access time updates of all the files in the volumes of an aggregate start because the aggregate has enough free space. Access time updates of all the files were stopped when the aggregate ran out of space. The aggregate now has enough space to start the access time updates.

Corrective Action

(None).

Syslog Message

Access time updates of all the files in the volumes of aggregate "%s" have started.

Parameters

aggregate_name (STRING): Aggregate name for which access time updates of all the files in the volumes start.

wafl.atime.updates.stopped

Severity

ALERT

Description

This message occurs when the access time updates of all the files in the volumes of an aggregate stop because the aggregate has consumed its entire free space.

Corrective Action

Create space by increasing the aggregate size or by deleting some volumes or moving volumes to other aggregates. Use the "storage aggregate show-space" command to view the current space usage of the aggregate. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate snapshots are deleted automatically to make some space when the aggregate is full.

Syslog Message

Access time updates of all the files in the volumes of aggregate "%s" have been stopped.

Parameters

aggregate_name (STRING): Aggregate name for which access time updates of all the files in the volumes stop.

wafl.atime.updates.will.stop

Severity

ALERT

Description

This message occurs when the aggregate is nearly full. The access time updates of all the files in the volumes of an aggregate stop when the aggregate consumes its entire free space.

Corrective Action

Create space by increasing the aggregate size or by deleting some volumes or moving volumes to other aggregates. Use the "storage aggregate show-space" command to view the current space usage of the aggregate. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate snapshots are deleted automatically to make some space when the aggregate is full.

Syslog Message

Access time updates of all the files in the volumes of aggregate "%s" stop when the aggregate becomes full.

Parameters

aggregate_name (STRING): Aggregate name for which access time updates of all the files in the volumes stop.

wafl.attr events

wafl.attr.topK.clear.fail

Severity

ALERT

Description

This message occurs when the large directory report fails to be cleared for a volume when this feature is turned off due to an internal error. Report on large directories might be unavailable or incorrect when it is turned on again.

Corrective Action

The system should attempt to resolve the problems by itself. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

Clearing the large directory report fails for volume "%s%s. Error: %s"

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
error (STRING): Error message.

wafl.attr.topK.init.fail

Severity

ALERT

Description

This message occurs when the large directory report fails to be initialized for a volume due to an internal error. Report on large directories might be unavailable or incorrect.

Corrective Action

The system should attempt to resolve the problems by itself. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

Initializing the large directory report fails for volume "%s%s. Error: %s".

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
error (STRING): Error message.

wafl.attr.topK.scan.fail

Severity

ALERT

Description

This message occurs when the scanning of the analytics database for large directories data fails due to an internal error. Report on large directories may be unavailable or incorrect.

Corrective Action

The system should attempt to resolve the problems by itself. If problems persist or further assistance is needed, contact NetApp technical support.

Syslog Message

Scanning analytics database for large directory report fails for volume "%s%s. Error: %s".

Parameters

volname (STRING): Volume name.
vserveruuid (STRING): Universal Unique ID (UUID) of the volume's storage VM (SVM).
error (STRING): Error message.

wafl.bad events

wafl.bad.aggr.buftree.type

Severity

EMERGENCY

Description

This message occurs when you attempt to bring an aggregate online whose file system buftree type and RAID label format are inconsistent. Buftree type indicates whether the filesystem is a 32-bit or a 64-bit. Attempting to online this aggregate can cause data corruption or a system panic.

Corrective Action

Contact NetApp technical suppor

Syslog Message

Aggregate %s: Inconsistency found with the file system buftree type and RAID label format (large aggr: %d, fs: 0x%x, RAID: %d).

Parameters

name (STRING): The aggregate name.
large (INT): Flag showing if the aggregate size is bigger than 16 TB.
fsbuftree (INT): File system buftree type.
raidfmt (INT): RAID buftree format.

wafl.bad.vol.buftree.type

Severity

EMERGENCY

Description

This message occurs when you attempt to bring online a volume whose file system and volume descriptor buftree type show inconsistency. The buftree type shows whether the file system is a 32-bit or 64-bit. Bringing online such a volume can cause data corruption or system panic.

Corrective Action

(Call support).

Syslog Message

Volume %s: Inconsistency found with the file system buftree type and volume descriptor buftree type (large vol: %d, fs: 0x%x, label: 0x%x, RAID: %d). Bringing the volume online can cause data corruptions or system panic. Contact NetApp technical support.

Parameters

volname (STRING): Volume name.
large (INT): Flag showing if the volume size is bigger than 16 TB.
fsbuftree (INT): File system buftree type.
labelfmt (INT): Volume descriptor buftree type.
raidfmt (INT): RAID buftree type.

wafl.bagofbits events

wafl.bagofbits.name

Severity

ERROR

Description

This message occurs when a read directory request from an NFSv4 client is made to a Unicode-based directory in which directory entries with no NFS alternate name contain non-Unicode characters.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Access the parent directory from an NFSv3 client and rename the entry using Unicode characters.

Syslog Message

Cannot provide directory entry to NFSv4 client for file ID:%d in volume %s%s because it contains non-Unicode characters with no NFS alternate name.

Parameters

fileid (INT): File ID of the entry in the directory for which non-Unicode characters are present.
vol (STRING): Volume in which the directory entry with non-unicode characters is present.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) when the volume name itself is insufficient.

wafl.blkreclaim events

wafl.blkreclaim.abort

Severity

INFORMATIONAL

Description

This message occurs to inform you that the block reclamation scanner was aborted.

Corrective Action

You can disable this message as follows: setflag wafl_blk_reclaim_scan_log 0

Syslog Message

Block reclamation scanner was aborted on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name alone is insufficient.

wafl.blkreclaim.complete

Severity

INFORMATIONAL

Description

This message occurs when the block reclamation scanner is complete.

Corrective Action

Disable this message by running the 'setflag wafl_blk_reclaim_scan_log 0' command.

Syslog Message

Block reclamation scanner was completed on %s %s%s%s%s. The scanner took %ld ms.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
run_time (LONGINT): Total run time of the scanner.

wafl.blkreclaim.noscan

Severity

INFORMATIONAL

Description

This event is issued to inform the user that the block reclamation scanner was not started.

Corrective Action

This message may be disabled with: setflag wafl_blk_reclaim_scan_log 0

Syslog Message

Block reclamation scanner not started on %s %s%s%s%s.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.blkreclaim.reset

Severity

INFORMATIONAL

Description

This message occurs to inform you that the block reclamation scanner was reset.

Corrective Action

You can disable this message as follows: setflag wafl_blk_reclaim_scan_log 0

Syslog Message

Block reclamation scanner was reset on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name alone is insufficient.

wafl.br events

wafl.br.redir.invalid

Severity

ALERT

Description

This event is issued if block reallocation has not been performed on an aggregate but a reallocated block was found that subsequently needs to be redirected. Block reallocation operates in two phases: first the blocks on an aggregate are moved (reallocated), later, when the block is read, the old pointers to the block are updated (redirected). This event is issued when the second phase is required without the first phase occurring. Since this may indicate on-disk data corruption, the aggregate has been taken offline.

Corrective Action

(Call support).

Syslog Message

Invalid redirection: aggr:%s vol:%s

Parameters

aggr (STRING): The name of the aggregate
vol (STRING): The name of the volume

wafl.br.redir.nospace

Severity

NOTICE

Description

This message occurs when there's not enough free space to complete a redirect scan on a volume. The redirect scan improves performance by updating information that was changed because of block reallocation, but is not required for normal operation. This message is usually caused because reallocated blocks are shared between the active file system and a snapshot and cannot be updated without using more blocks than are currently available.

Corrective Action

Create more free space in the volume by deleting snapshots.

Syslog Message

The redirect scanner cannot complete its scan on '%s%s%s' because there is not enough disk space. Remove snapshots.

Parameters

volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier the volume in cases where the volume name itself is insufficient.

wafl.buf events

wafl.buf.badHeader

Severity

EMERGENCY

Description

This message occurs when the system encounters a bad header in the snapshot of the active map block of the filesystem.

Corrective Action

Delete the bad snapshot. For a SnapMirror® target, rebuild from source or resynchronize, after deleting the snapshot. If the problem persists or if you need further assistance, contact NetApp technical support.

Syslog Message

Bad header in snapshot of active map in %s %s%s%s%s, snapshot %d, fbn %llu.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapId (INT): Snapshot identifier.
fbn (LONGINT): File block number.

wafl.buf.freeingFreeBlock

Severity

EMERGENCY

Description

This message occurs when the system encounters a "freeing free block" error due to file system corruption.

Corrective Action

(Call support).

Syslog Message

Freeing free block at VBN %llu in %s %s%s%s%s. WAFL inconsistent. Contact NetApp technical support.

Parameters

vbn (LONGINT): Virtual block number of the block that is freed.
voltype (STRING): Type of the volume.
volowner (STRING): Owner of the volume.
volname (STRING): Name of the volume (again). This is returned from WAFL_VOL_PRINT_NAME_STRINGS.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
vendor (STRING): Name of the vendor.

wafl.c2c events

wafl.c2c.increase.vol.max.size.failed

Severity

ERROR

Description

This message occurs when attempt to increase volume max size limit during c2c restore fails due to an error.

Corrective Action

(None).

Syslog Message

Attempt to increase max size limit for volume:%s failed with Error:%d.

Parameters

vvolname (STRING): Name of the volume.
errorCode (INT): Error code

wafl.c2c.od.restore.scan.cloud.config.failed

Severity

NOTICE

Description

This message occurs when cloud config is unavailable and SMC on-demand restore from object store failed to start.

Corrective Action

(None).

Syslog Message

Phase:%s of the on-demand restore process for volume:%s with FSID:0x%x has failed. Attempt to restart SMC on-demand restore on this volume will continue in the background.

Parameters

>**restore_phase** (STRING): Specifies the phase for which the restore has been failed.
>**vol** (STRING): Volume name.
>**fsid** (INT): File system identifier of the volume.

wafl.c2c.od.restore.scan.initiated

Severity

>NOTICE

Description

>This message occurs when an on-demand restore from object store has been initiated.

Corrective Action

>(None).

Syslog Message

>Phase:%s of the on-demand restore process for volume:%s with FSID:0x%x has initiated.

Parameters

>**restore_phase** (STRING): Specifies the phase for which the restore has been initiated.
>**vol** (STRING): Volume name.
>**fsid** (INT): File system identifier of the volume.

wafl.c2c.od.restore.scan.restart.failed

Severity

>ALERT

Description

>This message occurs when SMC lazy restore scan restart attempt for transient error failed.

Corrective Action

>(None).

Syslog Message

>Restart Phase:%s of the on-demand restore process for volume:%s with FSID:0x%x has failed and error number %d. For more information or assistance, contact NetApp technical support.

Parameters

>**restore_phase** (STRING): Specifies the phase for which the restore has been failed.
>**vol** (STRING): Volume name.
>**fsid** (INT): File system identifier of the volume.
>**error** (INT): Error number.

wafl.c2c.restore.scan.abort

Severity

>NOTICE

Description

This message occurs when an operation to restore file(s)/volume from a cloud storage was aborted.

Corrective Action

(None).

Syslog Message

%s %s%s%s, %s Restore from cloud storage aborted.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
restore_type (STRING): Indicates whether the operation is Full Volume, Single File or On-demand Restore.

wafl.c2c.restore.scan.done

Severity

NOTICE

Description

This message occurs when an operation to restore file(s)/volume from a cloud storage was completed successfully.

Corrective Action

(None).

Syslog Message

%s %s%s%s, %s Restore from cloud storage completed.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
restore_type (STRING): Indicates whether the operation is Full Volume, Single File or On-demand Restore.

wafl.c2c.restore.scan.failed

Severity

ERROR

Description

This message occurs when there is an error during restoring of file(s) or Volume from a Cloud storage.

Corrective Action

(None).

Syslog Message

Restoring file with inode %d from cloud has failed with error %d for the volume %s with FSID 0x%x during %s Restore.

Parameters

fileid (INT): File identifier.
error (INT): Error Code.
vol (STRING): Volume name.
fsid (INT): File system identifier of the volume.
restore_type (STRING): Indicates whether the operation is Full Volume, Single File or On-demand Restore.

wafl.c2c.rst.fsize.exceeded

Severity

NOTICE

Description

This message occurs when the size of a file being restored exceeds the maximum file size allowed by the system during the restoration of either files or a volume from cloud storage. The restore operation will fail for that particular file or volume.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s, FSID 0x%x, Restoring file with file ID %d from cloud has failed because the file size exceeded the maximum file size allowed on the current system, which is %lu bytes. The size of the file being restored is %lu bytes.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume if the volume name itself is insufficient.
fsid (INT): File system identifier of the volume.
fileid (INT): File identifier.
maxsize (LONGINT): Maximum file size allowed on this system.
filesize (LONGINT): Size of the file being restored.

wafl.ca events

wafl.ca.cap.tier.usage.limit

Severity

ERROR

Description

This message occurs when the space used in the capacity tier of a FabricPool aggregate has exceeded or is projected to exceed the size limit set on the capacity tier. The projected usage is calculated based on the cold data already identified for tiering. The system will continue to serve data while space exists in the performance tier, but cold data will not be tiered to the capacity tier.

Corrective Action

Perform one or more of the following actions: o Free space in the capacity tier of the aggregate by moving volumes, removing volumes, or deleting data. o Increase the size limit set on the capacity tier.

Syslog Message

Aggregate %s capacity tier usage (%llu MB) has exceeded its size limit (%llu MB).

Parameters

aggregate (STRING): Aggregate name.
capacityTierUsage (LONGINT): Current capacity tier usage in MB.
capacityTierSizeLimit (LONGINT): Capacity tier size limit in MB.

wafl.ca.cloud.retrieval.policy

Severity

NOTICE

Description

This message occurs when the cloud retrieval policy for a volume in a FabricPool has been modified.

Corrective Action

(None).

Syslog Message

Cloud retrieval policy on volume '%s%s%s%s' has been modified to %s.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Identifier of the volume.
cloud_retrieval_policy (STRING): Cloud retrieval policy configured on the volume.

wafl.ca.cloud.write.disabled

Severity

NOTICE

Description

This message occurs when the cloud write option is disabled on a volume in a FabricPool aggregate.

Corrective Action

(None).

Syslog Message

The Cloud Write option is disabled on volume %s.

Parameters

vol (STRING): Name of the volume.

wafl.ca.cloud.write.enabled

Severity

NOTICE

Description

This message occurs when the cloud write option is enabled on a volume in a FabricPool aggregate.

Corrective Action

(None).

Syslog Message

The Cloud Write option is enabled on volume %s.

Parameters

vol (STRING): Name of the volume.

wafl.ca.cs.hdr.cfg.mismatch

Severity

ALERT

Description

This message occurs when the system detects that the IDs recorded in the configuration map for FabricPool object stores for a specific aggregate do not match the configuration IDs currently in use by the aggregate itself. This mismatch might affect the reporting of statistics and counters for FabricPool object stores.

Corrective Action

Run the "aggr wafliron start <aggr_name>" command on the aggregate specified to fix the inconsistency.

Syslog Message

Aggregate "%s" with bin ID "%d" has configuration IDs in the FabricPool statistics file (configuration ID 1: %d, configuration ID 2: %d) that are different from the configuration IDs of the object stores in the configuration map (primary configuration ID: %d, mirror configuration ID: %d).

Parameters

aggr (STRING): Name of the aggregate.
bin (INT): Bin ID of the object stores.
cfg_id_1 (INT): Configuration ID 1, as reported by the aggregate.
cfg_id_2 (INT): Configuration ID 2, as reported by the aggregate.
primary_cfg_id (INT): Configuration ID of the primary object store.
mirror_cfg_id (INT): Non-zero configuration ID of the mirror object store, or zero if no such store exists.

wafl.ca.GET.latency.thresh

Severity

ALERT

Description

This message occurs when the measured latency for a GET request from a cloud provider, for a specific aggregate and object store, exceeds the maximum threshold specified for that object store. This can impact performance and lead to request timeouts.

Corrective Action

Ensure that the configuration of your object store has not changed, and that login and connectivity information are still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Measured latency for GET request from cloud (%d msec) exceeds the threshold (%d msec) (aggregate: %s, aggregate UUID: %s, object store: %s, object store provider: %s, object name: %s, offset: %d, length: %d).

Parameters

latency_msec (INT): Latency cycles specified in milliseconds.
threshold_msec (INT): Threshold value in milliseconds for the latency.
aggr (STRING): Name of the containing aggregate.
aggr_uuid (STRING): Universal unique identifier (UUID) of the aggregate.
config_name (STRING): Object store configuration name.
objstore_name (STRING): Object store provider name.
object_name (STRING): Object name.
offset (INT): Offset for GET request.
len (INT): Request length for GET request.

wafl.ca.GET.timeout.failure

Severity

EMERGENCY

Description

This message occurs when ONTAP fails to read a block from a cloud object because the underlying GET request times out.

Corrective Action

Ensure that the configuration of your object store has not changed, and that login and connectivity information are still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Failed to read an object from cloud due to GET request timeout (aggregate: %s, aggregate UUID: %s, object store: %s, object store provider: %s, object name: %s, offset: %d, length: %d).

Parameters

aggr (STRING): Name of the containing aggregate.
aggr_uuid (STRING): Universal unique identifier (UUID) of the aggregate.
config_name (STRING): Object store configuration name.
objstore_name (STRING): Object store provider name.

object_name (STRING): Object name.
offset (INT): Offset for GET operation.
len (INT): Request length for GET operation.

wafl.ca.latency.threshold

Severity

NOTICE

Description

This message occurs when the measured I/O latency from a cloud provider, for a specific aggregate and object store, exceeds the maximum threshold. This can impact performance and lead to request timeouts.

Corrective Action

(None).

Syslog Message

Measured latency from cloud (%d msec) exceeds the threshold (%d msec) (aggregate: %s, aggregate UUID: %s, object store: %s, S3 request: %s, object store provider: %s).

Parameters

latency_msec (INT): Latency cycles specified in milliseconds.
threshold_msec (INT): Threshold value in milliseconds for the latency.
aggr (STRING): Name of the containing aggregate.
aggr_uuid (STRING): Universal unique identifier (UUID) of the aggregate.
config_name (STRING): Object store configuration name.
op_name (STRING): S3 or Azure blob operation name.
objstore__name (STRING): Object store provider name

wafl.ca.mcc.tlog.drain.event

Severity

NOTICE

Description

This message occurs when tiering is enabled or disabled on a FabricPool in a MetroCluster(tm) configuration, when one or more mirrored plexes transitions from normal to degraded state or vice versa. Enabling or disabling tiering does not impact data availability or client read/write performance.

Corrective Action

(None).

Syslog Message

Mirrored plex "%s" on FabricPool "%s" is in "%s" state. Tiering is %s.

Parameters

plex_name (STRING): Name of the plex.
aggregate_name (STRING): Name of the FabricPool.
plex_state (STRING): Operational state of the plex.
message (STRING): Indicates whether tiering is enabled or disabled.

wafl.ca.migrate.aggr.nospace

Severity

NOTICE

Description

This message occurs when one or more FabricPool aggregates does not have space for hot data to be migrated back to the performance tier.

Corrective Action

Either free space in the performance tier of the aggregate (by moving volumes, removing volumes, or deleting data), or add space to the performance tier of the aggregate by adding disks.

Syslog Message

Aggregate %s: Current available space in the performance tier is below %d%%. Data migration from the capacity tier to the performance tier is stopped.

Parameters

aggr (STRING): Aggregate name.
threshold_percentage (INT): Percentage of aggregate space that must be unused for migration to occur.

wafl.ca.name.fmt.mismatch

Severity

ERROR

Description

This message occurs when the system detects an internal discrepancy on the name format version used by the FabricPool. Cloud operations on the FabricPool is affected.

Corrective Action

Run the 'debug vreport show' command to see the object name format version discrepancy. Follow the vreport guidance to fix the issue.

Syslog Message

Name format version discrepancy detected for FabricPool "%s". Operations to the object store affected.

Parameters

aggr (STRING): Name of the FabricPool.

wafl.ca.object.check.done

Severity

INFORMATIONAL

Description

This event is issued to indicate that the object check operation on a FabricPool aggregate completed successfully.

Corrective Action

(None).

Object check operation completed on FabricPool %s. Total lost objects: %d.

Parameters

aggr (STRING): Name of the containing aggregate.
num_lost_objs (INT): Number of lost objects identified.

wafl.ca.object.check.start

Severity

INFORMATIONAL

Description

This message occurs when object check operation on a FabricPool aggregate is started successfully.

Corrective Action

(None).

Syslog Message

Object check operation was started on FabricPool %s. Output will be saved at %s.

Parameters

aggr (STRING): Name of the containing aggregate.
logfile (STRING): Path for the logfile for object check output.

wafl.ca.object.storage.class.updated

Severity

NOTICE

Description

This message occurs when the object storage class is updated on a volume in a FabricPool aggregate.

Corrective Action

(None).

Syslog Message

The tiering storage class on volume %s is updated from %s to %s.

Parameters

vol (STRING): Name of the volume.
old_storage_class (STRING): Old tiering storage class.
new_storage_class (STRING): Updated tiering storage class.

wafl.ca.objtag.retry.limit

Severity

NOTICE

Description

This message occurs when the object tagging scanner fails to update tags on an object in the object store even after retrying for the maximum allowed attempts. The scanner is aborted for the current scan and will attempt to tag the object again the next time the scanner runs. The scanner is invoked every minute to check whether there are objects to be tagged.

Corrective Action

(None).

Syslog Message

Failed to update object tags in the object store even after multiple retry attempts, aggregate = %s, object ID =%lu, object name =%s, retries attempted = %d.

Parameters

aggregate_name (STRING): Aggregate name.
object_id (LONGINT): Object ID.
object_name (STRING): Object name.
num_retries (INT): Number of retries attempted.

wafl.ca.objtag.skip.retry

Severity

NOTICE

Description

This message occurs when the object tagging scanner fails to update tags on an object in the object store even after retrying for the maximum allowed attempts. The scanner continues to update tags on other objects instead of aborting the scan due to repeated failures over one or more objects.

Corrective Action

(None).

Syslog Message

Failed to update object tags in the object store even after multiple retry attempts. Tagging skipped on object: aggregate = %s, object ID =%lu, object name =%s, retries attempted = %d.

Parameters

aggregate_name (STRING): Aggregate name.
object_id (LONGINT): Object ID.
object_name (STRING): Object name.
num_retries (INT): Number of retries attempted.

wafl.ca.objtag.unsupported

Severity

NOTICE

Description

This message occurs when object tags are added or updated on a FabricPool volume. This message indicates that objects tiered from this volume will not be tagged in the object store.

Corrective Action

(None).

Syslog Message

Object tagging is supported only for a StorageGRID® object store in this version of ONTAP® software. Objects in %s object store (%s) attached to FabricPool %s will not be tagged in this version.

Parameters

provider_name (STRING): Object store name.
object_store_type (STRING): Object store type (primary or mirror).
aggregate (STRING): Name of the FabricPool.

wafl.ca.promote.none.nospc

Severity

NOTICE

Description

This message occurs when a FabricPool volume with tiering policy set to "none" and cloud retrieve policy set to "promote" does not have enough free space available to fetch all the data from the cloud. The scanner to fetch the data will abort and be periodically rescheduled until the space is available.

Corrective Action

Ensure the aggregate has the estimated amount of space needed available.

Syslog Message

Aggregate %s, Volume %s: Current available space in the performance tier is %llu bytes. There needs to be at least %llu bytes free in the aggregate to fetch an estimated %llu bytes from the cloud. Data migration from the capacity tier to the performance tier is paused.

Parameters

aggr (STRING): Aggregate name.
vol (STRING): Volume name.
avail_space (LONGINT): Free space in aggregate.
space_needed (LONGINT): Estimated amount of physical space that must be free to accommodate data fetched from the cloud.
cloud_space_to_fetch (LONGINT): Estimated amount of physical space to fetch from the cloud.

wafl.ca.promote.snap.nospc

Severity

NOTICE

Description

This message occurs when a FabricPool volume with tiering policy set to "snapshot_only" and cloud retrieve policy set to "promote" does not have enough free space available to fetch the AFS data from the cloud. The scanner to fetch the data will abort and be periodically rescheduled until the space is available.

Corrective Action

Ensure the aggregate has the estimated amount of space needed available.

Aggregate %s, Volume %s: Current available space in the performance tier is %llu bytes. There needs to be at least %llu bytes free in the aggregate to fetch AFS data from the cloud. Data migration from the capacity tier to the performance tier is paused.

Parameters

aggr (STRING): Aggregate name.
vol (STRING): Volume name.
avail_space (LONGINT): Free space in aggregate.
space_needed (LONGINT): Minimum amount of physical space that must be free to accommodate AFS data fetched from the cloud.

wafl.ca.remove.object.tag

Severity

NOTICE

Description

This message occurs when the system encounters a bad header in the block that stores the tag values associated with the objects that belong to the volume. As a result of this corruption, all the tags information stored in the block is cleared.

Corrective Action

(None).

Syslog Message

Clearing all tags due to inconsistencies found in the object tag metafile associated with volume %s.

Parameters

volname (STRING): Volume name.

wafl.ca.repaired.metafile

Severity

ERROR

Description

This message occurs when an inconsistency is discovered in one of the FabricPool metafile blocks. The inconsistency is automatically repaired upon detection.

Corrective Action

(None).

Syslog Message

Inconsistent block (%s) found in %s metafile on FabricPool aggregate (%s). Repaired.

Parameters

state (STRING): A description of the metafile block that was found to be inconsistent.
metafile_name (STRING): Name of the metafile.
aggr (STRING): Name of the FabricPool aggregate.

wafl.ca.resync.complete

Severity

NOTICE

Description

This message occurs when Data ONTAP® completes the resync process from the primary object store to the mirror object store for a mirrored FabricPool aggregate.

Corrective Action

(None).

Syslog Message

FabricPool mirror resync process is completed for FabricPool %s (uuid %s) from primary object store (config id %u) to mirror object store (config id %u).

Parameters

aggr (STRING): Name of the containing aggregate.
aggr_uuid (STRING): Universal Unique ID (UUID) of the aggregate.
primary_config_id (INT): Primary object store config id.
mirror_config_id (INT): Mirror object store config id.

wafl.ca.resync.read.fail

Severity

ALERT

Description

This message occurs when FabricPool mirror resynchronize attempt receives too many consecutive timeout failures while reading a single object from the primary. The mirror will stay in a degraded state until all objects can be read and copied to the mirror.

Corrective Action

Verify that your intercluster LIF is online and functional by using the "network interface show" command. Also, check network connectivity to the object store server by using the "ping" command over the destination node intercluster LIF. Additionally, ensure that the configuration of your object store has not changed, and that login and connectivity information is still accurate. If the condition persists, contact NetApp technical support.

Syslog Message

Unable to read cloud object from capacity tier (objid %llu, btuuid %s, seqno %llu) during FabricPool mirror resync.

Parameters

object_id (LONGINT): Object identifier.
btuuid (STRING): Buftree UUID.
seqno (LONGINT): Sequence number.

wafl.ca.resync.read.set.err.obj

Severity

ALERT

Description

This message occurs when Data ONTAP® marks all blocks in an object in a capacity tier object with an error due to FabricPool mirror resync read errors. This is useful for tracking generation of some pseudobad blocks due to resync read issues.

Corrective Action

Contact Contact NetApp technical support..

Syslog Message

Unable to read cloud object from capacity tier (objid %llu, btuuid %s, seqno %llu) during FabricPool mirror resync. As a result, all blocks in this object are marked with error (%u).

Parameters

object_id (LONGINT): Object identifier.
btuuid (STRING): Buftree UUID.
seqno (LONGINT): Sequence number.
error (INT): Error on the block.

wafl.ca.revert.ufmt.paused

Severity

ERROR

Description

This message occurs when the revert operation to convert a unified object format is paused either because there are one or more offline volumes in the FabricPool aggregate or because the tiering of unified format objects to the object store is pending.

Corrective Action

Bring the volumes online in the aggregate to resume the unified object format revert operation. Use the "volume object-store tiering show" command to check the tiering status of a volume.

Syslog Message

The operation to revert the object format to the native format paused on aggregate "%s" because there are offline volumes or the tiering of unified format objects to the object store is pending.

Parameters

aggregate_name (STRING): Aggregate name.

wafl.ca.slothdr.repair.done

Severity

INFORMATIONAL

Description

This event is issued to indicate that the slothdr repair operation for a FabricPool aggregate completed successfully.

Corrective Action

(None).

Syslog Message

Slothdr metafile repair operation completed for FabricPool %s.

Parameters

aggr (STRING): Name of the containing aggregate.

wafl.ca.slothdr.repair.start

Severity

INFORMATIONAL

Description

This message occurs when an operation to repair the slothdr metafile for a FabricPool aggregate is started successfully.

Corrective Action

(None).

Syslog Message

Slothdr metafile repair operation was started for FabricPool %s.

Parameters

aggr (STRING): Name of the containing aggregate.

wafl.ca.tier.aggr.spc.limit

Severity

ERROR

Description

This message occurs when the FabricPool aggregate does not have enough free space to tier cold data to the capacity tier. The system will continue to serve data, but cold data will not be tiered.

Corrective Action

Either free space in the performance tier of the aggregate by moving volumes, removing volumes, or deleting data, or add space to the performance tier of the aggregate by adding disks.

Syslog Message

Aggregate %s: Current available space in the performance tier is below %d%%. Data tiering from the performance tier is stopped.

Parameters

aggr (STRING): Aggregate name.
threshold_percentage (INT): Percentage of aggregate space that must be unused for tiering to occur.

wafl.ca.tier.max.size.limit

Severity

ERROR

Description

This message occurs when the capacity tier of a FabricPool aggregate reaches the maximum supported capacity tier size. The system will continue to serve data, but cold data will not be migrated to the capacity tier.

Corrective Action

This state can be corrected by performing one or more of the following actions: o Free space in the capacity tier of the aggregate by moving volumes, removing volumes, or deleting data.

Syslog Message

Aggregate %s capacity tier usage (%llu MB) has reached the maximum capacity tier size limit (%llu MB).

Parameters

aggregate (STRING): Aggregate name.
capacityTierUsage (LONGINT): Current capacity tier usage in MB.
maxCapacityTierSizeLimit (LONGINT): Maximum capacity tier size in MB.

wafl.ca.tiering.policy

Severity

NOTICE

Description

This message occurs when the tiering policy for a volume in a FabricPool has been modified.

Corrective Action

(None).

Syslog Message

Tiering policy on volume '%s%s%s%s' has been modified to %s.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
tiering_policy (STRING): Tiering policy configured on the volume.

wafl.ca.tlogput.modified

Severity

INFORMATIONAL

Description

This message occurs when the FabricPool Put operation settings are modified by an administrator.

Corrective Action

(None).

Syslog Message

FabricPool Put operation settings were modified. New Values, bytes-limit: %llu, latency-limit: %llu, preserved: %u,%u

Parameters

bytes_limit (LONGINT): The put-rate-bytes-limit value.
latency_limit (LONGINT): The put-latency-limit value.
preserve (INT): The preserve setting value.
can_preserve (INT): Non-Zero if the node supports preserving settings.

wafl.ca.total.space.incons

Severity

ERROR

Description

This message occurs when the counter tracking the total amount of space used in an object store bucket becomes inconsistent due to other inconsistencies in the object metadata.

Corrective Action

For more information or assistance, contact NetApp technical support.

Syslog Message

Inconsistency was found in the total object store space used by FabricPool aggregate "%s". Skipped space adjustments have caused overcounting by as much as %llu bytes.

Parameters

aggrname (STRING): Name of the aggregate.
space_delta (LONGINT): The estimated amount of space in bytes that could be overcounted as a result of other inconsistencies.

wafl.catalog events

wafl.catalog.invalid

Severity

NOTICE

Description

This event indicates that WAFL catalog block in nvram is invalid during nvram replay.

Corrective Action

(None).

Syslog Message

Wafl Catalog invalid.

Parameters

(None).

wafl.cbin events

wafl.cbin.iron.mirror.config.changed

Severity

INFORMATIONAL

Description

This message occurs when cloud mirror configuration changes during the WAFLiron operation on a FabricPool aggregate with unified format enabled.

Corrective Action

Run wafliron again on the aggregate.

Syslog Message

The wafliron cannot update total physical size on bin label as cloud mirror configuartion has changed on aggreagate %s. Please run wafliron again on the aggregate.

Parameters

aggregate_name (STRING): Aggregate name.

wafl.cbin.iron.objslothdr.invalid.entry.threshold.reached

Severity

INFORMATIONAL

Description

This message occurs when number of invalid entries in objslothdr metafile reaches the upper threshold during the WAFLiron operation on a FabricPool aggregate with unified format enabled.

Corrective Action

Run the fixup tool on the Fabricpool aggregate and after the fixup tool finishes, run wafliron again on the aggregate.

Syslog Message

The wafliron cannot update total physical size on bin label as number of invalid entries in slothdr metafile reached the upper threshold on aggregate %s. Please run the fixup tool on the aggregate before running wafliron again.

Parameters

aggregate_name (STRING): Aggregate name.

wafl.cbin.label.total.physical.size.overcounted

Severity

INFORMATIONAL

Description

This message occurs when overcounting of total physical size on the bin label happens due to invalid entries in slothdr metafile belonging to a Fabricpool aggregate with unified format enabled.

Corrective Action

Run the fixup tool on the Fabricpool aggregate and after the fixup tool finishes, run wafliron again on the aggregate.

Syslog Message

The total physical size on bin label belonging to Fabricpool aggregate %s might be overcounted as there were %llu invalid entries in slothdr metafile. The current physical used is %llu. Previously physical used was %llu. For further assistance, contact NetApp technical support.

Parameters

aggregate_name (STRING): Aggregate name.
invalid_entry_count (LONGINT): Number of invalid entries present in slothdr metafile.
physical_used (LONGINT): Current total physical used in capacity tier.
old_physical_used (LONGINT): Previous total physical used in capacity tier.

wafl.cbin.objslothdr.iron.skip.resync.in.progress

Severity

INFORMATIONAL

Description

This message occurs when wafliron skips ironing objslothdr metafile on a FabricPool aggregate with unified format enabled as resync operation is in progress.

Corrective Action

Run wafliron again once resync operation is complete.

Syslog Message

Wafliron has skipped ironing objslothdr metafile on aggregate %s as resync operation is in progress on this aggregate. Please run wafliron after resync operation is complete.

Parameters

aggregate_name (STRING): Aggregate name.

wafl.cde events

wafl.cde.decompression.fail

Severity

ERROR

Description

This message occurs when the WAFL® kernel cannot decompress a compressed user data block. This is an abnormal condition that can lead to inconsistencies in the user data.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

Failed to decompress a block on volume "%s" (vvbn=%llu pvbn=%llu). Details: %s.

Parameters

vol (STRING): Volume name.
vvbn (LONGINT): Virtual volume block number for which decompression failed.
pvbn (LONGINT): Physical volume block number for which decompression failed.
details (STRING): Additional information.

wafl.cdemap events

wafl.cdemap.repaired.metafile

Severity

ERROR

Description

This message occurs when an inconsistency is discovered in one of the metafile blocks. The inconsistency is automatically repaired upon detection.

Corrective Action

(None).

Syslog Message

Inconsistent block (%s) found in %s metafile on aggregate (%s). Repaired.

Parameters

state (STRING): A description of the metafile block that was found to be inconsistent.
metafile_name (STRING): Name of the metafile.
aggr (STRING): Name of the aggregate.

wafl.check events

wafl.check.info

Severity

ERROR

Description

Generic wafl check message

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): The message from wafl check

wafl.check.lostnfound.error

Severity

NOTICE

Description

WAFL failed to cleanup the lostnfound directory present in the metadir of the given volume.

Corrective Action

(None).

Syslog Message

Failed to cleanup lostnfound from the metadir of volume %s (reason: %s)

Parameters

vol (STRING): The volume name
err (STRING): The error string

wafl.cleanup events

wafl.cleanup.after.giveback

Severity

INFORMATIONAL

Description

This message occurs after WAFL® completes the post-giveback cleanup. The cleanup includes freeing memory resources allocated for the partner file system.

Corrective Action

(None).

Syslog Message

(None).

Parameters

delay (LONGINT): Amount of time (in milliseconds) WAFL took to perform the post giveback cleanup. 1518 blocks

wafl.cleanup.after.relocate

Severity

INFORMATIONAL

Description

This message occurs after WAFL® completes the aggregate relocation cleanup. The cleanup includes freeing memory resources allocated for the partner file system.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggrName (STRING): Name of the aggregate.
delay (LONGINT): Amount of time (in milliseconds) WAFL took to perform the post aggregate relocation cleanup.

wafl.cleanup.after.sendhome

Severity

INFORMATIONAL

Description

This message occurs after WAFL® completes the aggregate post-giveback cleanup. The cleanup includes freeing memory resources allocated for the partner file system.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggrName (STRING): Name of the aggregate.
delay (LONGINT): Amount of time (in milliseconds) WAFL took to perform the aggregate post-giveback cleanup.

wafl.clone events

wafl.clone.invalid.inherited.counters

Severity

ERROR

Description

This message alerts about invalid inherited counters for the clone flexible volume.

Corrective Action

(Call support).

Syslog Message

clone inherited counters for clone flexible volume %s on aggregate %s are invalid. The clone volume will be offlined. It is recommended to online parent volume if not already onlined. Once the parent volume is onlined, the clone also be onlined. Contact technical support for assistance.

Parameters

clonename (STRING): Clone flexible volume name.
aggrname (STRING): Aggregate name.

wafl.clone.no.basesnap

Severity

ERROR

Description

This message alerts you about a missing clone flexible volume base snapshot and strongly recommends that you take the clone flexible volume offline and destroy it.

Corrective Action

Take the clone flexible volume offline immediately. If you know that the clone does not contain any valuable data, you can safely destroy and re-create it.

Syslog Message

Base snapshot for clone flexible volume %s on aggregate %s is missing. It is strongly recommended that you take the clone offline and destroy it. Failure to do so might lead to clone panic at any time.

Parameters

clonename (STRING): Clone flexible volume name.
aggrname (STRING): Aggregate name.

wafl.clone.quota.error.ignored

Severity

ERROR

Description

This message occurs when a clone op cannot fail due to quota error because either quota accounting is ignored by the user (e.g, sfsr) or the clone op cannot fail (eg, split), so it ignores the quota error it received during quota check.

Corrective Action

None required.

Syslog Message

Sis clone running in (vol='%s', volident='%s') ignored quota error '%u' during '%s' operation.

Parameters

vol (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
error_code (INT): A numerical error code indicating the reason why the quota check failed.
op_type (STRING): Type of sis clone operation (create/split).

wafl.clone.snapSpcGuar

Severity

INFORMATIONAL

Description

This event is issued if an attempt is made to delete a snapshot in a clone volume that would require the space guarantee on the clone to exceed the available space in the aggregate. A clone volume initially shares one or more snapshots with its parent volume. This allows the space guarantee to be optimized,

reducing the space requirement in the aggregate. If a shared snapshot is deleted then extra space is required in the aggregate to ensure the space guarantee for the volume can be enforced. If the freespace in the aggregate is too small to allow this then the snap delete is rejected.

Corrective Action

This state can be corrected by performing one or more of the following actions: o Change the space guarantee on the volume so that less space is required in the aggregate. o Free space in the aggregate by shrinking or removing volumes. o Add space to the aggregate, e.g. by adding disks.

Syslog Message

Snapshot '%s' in clone volume '%s%s%s' cannot be deleted, there is insufficient space in the aggregate to enforce the space guarantee (%s)

Parameters

snap_name (STRING): The snapshot name
vol_name (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
guarantee (STRING): The current guarantee

wafl.clone.snapsplit.nospace

Severity

NOTICE

Description

This message occurs when there is not enough free space to complete a file clone split operation from the snapshot. The clone file might become unreadable when the parent snapshot is automatically deleted.

Corrective Action

Increase the space available to the volume by either adding disks or by freeing space in the volume to allow the split operation to continue.

Syslog Message

File clone split from snapshot of '%s%s%s' cannot be completed due to lack of disk space.

Parameters

name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.clone.split.start.vol.fenced

Severity

NOTICE

Description

This event indicates that vol clone split start was called for a fenced volume after iron completion.

Corrective Action

(None).

Syslog Message

Volume clone split start called for fenced volume '%s%s%s'.

Parameters

volname (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.clone.unrecoverable

Severity

ALERT

Description

This message occurs during boot when a clone is marked unrecoverable due to its missing base snapshot.

Corrective Action

If you know that the clone does not contain any valuable data, you can safely destroy and re-create it. If it contains any valuable data, you can recover only the data which was written after the volume clone was created. Trying to access the data which was shared with the base snapshot (original data) will result in error.

Syslog Message

Base snapshot for clone %s on aggregate %s is missing. Marking it unrecoverable.

Parameters

clonename (STRING): Clone name.
aggrname (STRING): Aggregate name.

wafl.compaction events

wafl.compaction.CP.value

Severity

INFORMATIONAL

Description

This message occurs when the aggregates compaction CP value is changed.

Corrective Action

(None).

Syslog Message

Compaction CP count in aggregate "%s" changed from %ld to %ld at aggregate's CP count %ld.

Parameters

volname (STRING): Volume name on which value was changed.
oldval (LONGINT): Old value of CP count.
newval (LONGINT): New value of CP count.
fs_cpcount (LONGINT): CP count of aggregate fsinfo.

wafl.compress events

wafl.compress.auto.disable

Severity

NOTICE

Description

This message occurs when compression is automatically disabled on a space guarantee volume because it is not supported on this platform.

Corrective Action

(None).

Syslog Message

WAFL compression automatically disabled in %s "%s".

Parameters

volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.

wafl.compress.cde.auto.enablement

Severity

NOTICE

Description

This message occurs when WAFL compression on container file level is automatically enabled on a volume.

Corrective Action

(None).

Syslog Message

WAFL auto adaptive compression automatically enabled in %s "%s".

Parameters

volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.

wafl.compress.cde.event

Severity

NOTICE

Description

This message occurs when WAFL compression on container file level is enabled or disabled on a volume.

Corrective Action

(None).

Syslog Message

WAFL container compression state changed in %s "%s" to "%s".

Parameters

volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.
message (STRING): Whether enable or disable.

wafl.compress.enable.failed

Severity

INFORMATIONAL

Description

This event is issued when FAS compression can not be enabled on a volume. The following reasons might be causing the problem: FAS compression might not be supported on the software release you're running; the volume is not a flexible volume or it is a root volume or snaplock volume; the compression/de-compression scanner is already active; or a clone operation is already underway.

Corrective Action

(None).

Syslog Message

Compression could not be enabled on volume "%s" at this time. Check the volume configuration and retry.

Parameters

vol (STRING): Volume name.

wafl.compress.fail.rootVol

Severity

NOTICE

Description

This message occurs when an administrator attempts to enable compression on the root volume. Compression cannot be enabled on the root volume.

Corrective Action

(None).

Syslog Message

'%s' is the root volume and compression cannot be enabled on the root volume.

Parameters

vol (STRING): Volume name.

wafl.compress.mark.cg.bad.hw

Severity

ALERT

Description

This message occurs when the FAS compression writes bad blocks for an inconsistent or corrupted compression group due to hardware errors.

Corrective Action

Restore the corrupted file from the snapshot, or contact NetApp technical support

Syslog Message

FAS compression: Writing bad blocks, at fbn:%llu level:%u in %s inode (fileid:%d snapid:%u) in volume %s%s%s%s.

Parameters

fbn (LONGINT): File block number.
level (INT): Buffer level.
ino_type (STRING): Inode type
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.compress.mark.cg.bad.sw

Severity

ERROR

Description

This message occurs when the FAS compression writes bad blocks for an inconsistent or corrupted compression group due to software errors.

Corrective Action

Restore the corrupted file from the snapshot, or contact NetApp technical support

Syslog Message

FAS compression: Writing bad blocks, at fbn:%llu level:%u in %s inode (fileid:%d snapid:%u) in volume %s%s%s%s.

Parameters

fbn (LONGINT): File block number.
level (INT): Buffer level.
ino_type (STRING): Inode type
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.compress.scan.checkpoint.deleted

Severity

NOTICE

Description

This event is generated when the FAS compression of existing data for volume deletes checkpoint.

Corrective Action

(None).

Syslog Message

vol compress: Checkpoint deleted for compression of existing data for volume "%s%s%s".

Parameters

vol (STRING): Name of the compressed volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.convert events

wafl.convert.directory.failed

Severity

ERROR

Description

This message occurs when a directory cannot be safely converted to Unicode format. The directory contains files or subdirectories that must first be renamed.

Corrective Action

Use the "volume file show-inode" command with the directory inode number and volume name information to find the path of the directory that could not be converted. There are some files or subdirectories within this parent directory that have names like "{123456789}". File names like these can make it unsafe for ONTAP® software to automatically convert a directory to Unicode format. To convert the directory, first rename the files or subdirectories in this parent directory that have names matching this pattern. To perform these renames, make sure that the volume has the "-convert-ucode" property set to "false", and then rename the content using an NFSv3 client.

Syslog Message

Volume "%s:%s" was unable to convert directory %u to Unicode.

Parameters

vserver_uuid (STRING): Universal Unique ID (UUID) of the volume's Vserver.
volume (STRING): Volume name that the directory is in.
directory_inum (LONGINT): The Inode number (fileid) of the directory.

wafl.cop events

wafl.cop.flowcontrol.end

Severity

NOTICE

Description

This message occurs when the system is out of the flow control mode which was earlier initiated as a high number of volumes were receiving modify operations concurrently beyond a certain threshold.

Corrective Action

(None).

Syslog Message

The node is out of the flow control mode which was earlier initiated as a high number volumes were receiving modify operations concurrently beyond a certain threshold (%lu).

Parameters

high_concurrency_flowcontrol_thres (LONGINT): System defined threshold beyond which high-concurrency flow control mode is triggered.

wafl.cop.flowcontrol.start

Severity

NOTICE

Description

This message occurs when the system is in a very high concurrency mode; i.e., when a high number of volumes receive modify operations concurrently beyond a certain threshold. The system is automatically getting into a flow control mode, where it may hold ops on certain volumes for longer time in order to reduce high-concurrency related impacts.

Corrective Action

If the flow control situation is long-lived, and the delays are not acceptable, the concurrency level among the volumes need to be brought down by moving the volumes (preferably the ones encountering delays) out of this node.

Syslog Message

Very high number of volumes (%lu) are receiving modify operations concurrently. The node is in a flow control mode (threshold: %lu). As a result few volumes may experience higher delay in latency.

Parameters

concurrent_vvols_cnt (LONGINT): Number of volumes actively receiving modify operations.
high_concurrency_flowcontrol_thres (LONGINT): System defined threshold beyond which high-concurrency flow control mode is triggered.

wafl.cop.high.concurrency

Severity

NOTICE

Description

This message occurs when the system is in high-concurrency mode; i.e., when a high number of FlexVol® volumes receive modify operations concurrently during a monitoring interval. High concurrency might cause degradation in performance.

Corrective Action

(None).

Syslog Message

A high number of FlexVol volumes are receiving modify operations concurrently. Interval (ms): %lu, Aggregate: %s, Frequency: %lu out of %lu times, Threshold criteria: more than %u FlexVol volumes were concurrently receiving modify operations, Distribution: %s.

Parameters

monitoring_interval (LONGINT): Duration of monitoring interval in milliseconds.
aggr (STRING): Name of the aggregate.
cp_above_vvol (LONGINT): Number of Consistency Points (CPs) with FlexVol volumes participating above the vvol_threshold value in this monitoring interval.
total_cp_in_interval (LONGINT): Number of CPs that happened in the monitoring interval.
vvol_threshold (INT): Minimum number of FlexVol volumes in a CP to call it a "highly concurrent CP".
histogram (STRING): A histogram [b1 : v1, b2 : v2, …, b8 : v8], where "b" represents bin ID and "v" represents count of the corresponding bin ID.

wafl.cp events

wafl.cp.toolong

Severity

ERROR

Description

This message occurs when a WAFL® consistency point (CP) takes longer than 30 seconds. A CP lasting more than 30 seconds might cause client latency and potentially a client outage.

Corrective Action

For additional information about this specific CP, see the kernel log file and the corresponding CM archive. For further information about correcting the problem, search the knowledgebase of the NetApp technical support support web site for the "wafl.cp.toolong" keyword.

Syslog Message

Aggregate %s experienced a long CP.

Parameters

aggrname (STRING): Name of the aggregate.
repeats (INT): Number of consecutive long CPs on this volume.
cp_count (INT): CP count on the volume corresponding to the long CP.
total_ms (INT): Total time taken by the CP, in milliseconds.
total_dbufs (LONGINT): Total number of dirty buffers in the CP.
tetrises (INT): Number of tetrises that were written across all raidgroups in volume.
blocks (LONGINT): Number of blocks that were written across all raid groups in the volume.
rgid (INT): ID of the raid group with the highest average tetris write time.
clean (INT): Milliseconds to write allocate (clean) all normal files.
flush (INT): Milliseconds to write all remaining blocks to disk.

wafl.csm events

wafl.csm.sessionStopped

Severity

INFORMATIONAL

Description

This message occurs when the Cluster Session Manager (CSM) session is stopped as part of the shutdown process.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

wafl.data events

wafl.data.compaction.event

Severity

NOTICE

Description

This message occurs when data compaction functionality is enabled or disabled on a volume.

Corrective Action

(None).

Syslog Message

WAFL volume data compaction state changed in %s "%s" to "%s".

Parameters

volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.
message (STRING): Whether enable or disable.

wafl.delete events

wafl.delete.bad.indirect

Severity

NOTICE

Description

This message occurs when the system encounters a lost indirect block while deleting a file. As a result, some space occupied by the file being deleted might not be reclaimed.

Corrective Action

Run wafliron to fix any space accounting discrepancies.

Syslog Message

Lost indirect block encountered while deleting inode %d (level %d, vbn %llu) on %s %s%s%s%s. Contact NetApp technical support.

Parameters

ino (INT): Inode number of the file.
level (INT): Indirection level of the block.
vbn (LONGINT): Block number of the block within the volume.
type (STRING): Type of the object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Name of the volume containing the file.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.delete.fenced.file

Severity

NOTICE

Description

This message occurs when the user attempts to delete a fenced file. Depending on the type of fence, reads and/or writes will not be permitted for the file.

Corrective Action

Use the "volume file show-inode" command to confirm the file name that matches the inode, for example, "volume file show-inode -vserver 'vserver that fenced file is stored on' -volume 'volume that fenced file is stored on' -inode-number 'inode number of fenced file'". Clear the fenced status by using the "iofence clear 'file path name'" diagnostic privilege nodeshell command, and then the file can be deleted from the NFS/CIFS client.

Syslog Message

The file with inode %d on volume %s cannot be deleted because it is fenced by %s operation.

Parameters

fid (INT): Inode of the fenced file.
vol (STRING): Name of the volume that contains the fenced file.
owner (STRING): Name of the operation that fenced the file.

wafl.delete.specdev

Severity

INFORMATIONAL

Description

This message occurs when the system encounters a block or character device during zombie delete processing.

Corrective Action

(None).

Syslog Message

Block or character device encountered in zombie path: inode: %d, type: %d, size: %lld, block count: %llu. Possible inconsistency detected on %s %s%s%s%s.

Parameters

ino (INT): Inode number.
inotype (INT): Inode type.
size (LONGINT): Size.
blocks (LONGINT): Block count.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
vendor (STRING): Vendor contact information.

wafl.descend events

wafl.descend.fail

Severity

ERROR

Description

This message occurs when there is an error during descendency checking. This message can occur when accessing a directory in a snapshot that is being deleted.

Corrective Action

This condition might be transient; try the operation again. If the problem persists, contact NetApp technical support.

Syslog Message

Descendency check failure: {x%x %d %d %d %d} parent of {x%x %d %d %d %d}. Contact NetApp technical support.

Parameters

pfh0 (INT): Parent file handle's flags.
pfh1 (INT): Parent file handle's snapid.
pfh2 (INT): Parent file handle's fileid.
pfh3 (INT): Parent file handle's generation.
pfh4 (INT): Parent file handle's FSID.
cfh0 (INT): Child file handle's flags.
cfh1 (INT): Child file handle's snapid.
cfh2 (INT): Child file handle's fileid.
cfh3 (INT): Child file handle's generation.

cfh4 (INT): Child file handle's FSID.
vendor (STRING): Vendor contact information.

wafl.dir events

wafl.dir.convert

Severity

NOTICE

Description

This message indicates that CIFS directory conversion is in progress and WAFL will not hang due to timeout. Directory conversion happens the first time a volume with 8.3-format names is accessed by a CIFS client.

Corrective Action

(None).

Syslog Message

WAFL %s directory conversion in progress.

Parameters

type (STRING): Type of directory operation (revert/convert).

wafl.dir.convert.denied.2big

Severity

ERROR

Description

This message occurs when access to a directory is rejected because an attempted operation requires the directory to be converted to Unicode format and the directory is too large to be converted quickly. Directory conversion is required for a directory with 8.3-format names to be accessed by a CIFS or NFSv4 client.

Corrective Action

Use the "volume modify" command to enable the "convert_ucode" option on the volume experiencing the rejected access, and then retry the access attempt. Note that this might result in system performance degradation or temporary loss of service while the conversion occurs. Search on "Converting existing directories to Unicode format" for more information.

Syslog Message

Access to large directory on volume MSID:%u, file ID:%u rejected for requiring conversion.

Parameters

msid (LONGINTHEX): Volume master data set identifier (MSID) of the volume experiencing the rejected access.
fileid (INT): File identifier of the directory experiencing the rejected access.

wafl.dir.depth.max

Severity

ERROR

Description

This message occurs when a directory depth reaches its maximum depth limit. The default maximum depth is 2000.

Corrective Action

Reduce the depth of the directory, by moving directory hierarchy to higher levels.

Syslog Message

Directory depth for inum %d in volume %s%s exceeds the maximum directory depth limit. To fix this issue, please reduce the directory depth.

Parameters

fileid (INT): Fileid of the directory for which directory depth reached its maximum limit.
vol (STRING): Volume in which directory depth reached its maximum limit.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier in cases where volume name itself is insufficient.

wafl.dir.duplicate.hash

Severity

NOTICE

Description

This message occurs when a directory entry has a duplicate index hash for longname and dosname/altname is deleted from the directory.

Corrective Action

(None).

Syslog Message

An entry with duplicate index hash is found in directory inum %d in volume %s%s%s. Directory index clears to fix this issue.

Parameters

fileid (INT): File ID of the directory.
vol (STRING): Volume name.
app (STRING): Application universal unique identifier(UUID).
volident (STRING): Unique volume identifier in cases where volume name itself is insufficient.

wafl.dir.fileId.err

Severity

ERROR

Description

This event is issued when directory prefetch results in inconsistent file identifier data. The fh[0] to fh[4] parameters represent the encoded filehandle value.

Corrective Action

If this error condition occurs, contact NetApp technical support for further assistance.

Syslog Message

wafl_prefetch_dir_inos: inconsistent fileid %d in %s directory {x%x %d %d %d %d}.

Parameters

fileId (INT): The file identifier
ino_type (STRING): The inode type
fh0 (INT): fh[0]
fh1 (INT): fh[1]
fh2 (INT): fh[2]
fh3 (INT): fh[3]
fh4 (INT): fh[4]

wafl.dir.link.max

Severity

ERROR

Description

This message occurs as a warning when a parent directory reaches its maximum link limit within a specified time interval and the no of parent directory reached maximum hard link limit reached the upper limit. A directory has only one parent directory, which counts as a hard link. All other hard links are from the directories contained within this directory. The link to the parent directory cannot be removed.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Reduce the hard link count of this directory by moving some of its subdirectories to another directory, or remove some of its subdirectories.

Syslog Message

This is the last warning for failure to create a new sub-directory since parent directory with fileid %d in volume %s%s has reached its sub-directory limit.

Parameters

fileid (INT): File ID of the parent directory that has reached its maximum hard link limit.
vol (STRING): Name of the volume in which the parent directory resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory resides, when the volume name alone is insufficient.

wafl.dir.link.reachingLimit

Severity

ERROR

Description

This message occurs when a parent directory surpasses 90% of its maximum hard link limit. The total hard link count for a directory is the number of its subdirectories plus other hard links to the directory.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Move some of the parent directory's subdirectories to a different directory. Take care not to create too many new subdirectories in the parent directory that is reaching its limit until you reduce the hard link count.

Syslog Message

The directory with fileid %d in volume %s%s%s is approaching the maximum link limit of %d. Reduce the number of links to the existing parent directory.

Parameters

fileid (INT): File ID of the parent directory that has surpassed 90% of its maximum hard link limit.
vol (STRING): Name of the volume in which the parent directory resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory resides, when the volume name alone is insufficient.
maxLink (INT): Maximum number of hard links for the parent directory.

wafl.dir.link.trap

Severity

ALERT

Description

This message occurs as a warning when a directory has reached its maximum hard link limit and the specified time interval is exceeded.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Reduce the hard link count of this directory by moving some of its subdirectories to another directory, or remove some of its subdirectories.

Syslog Message

(None).

Parameters

fileid (INT): File ID of the parent directory that has reached its maximum hard link limit.
vol (STRING): Name of the volume in which the parent directory resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory resides, when the volume name alone is insufficient.
maxLink (INT): Maximum number of hard links allowed.

wafl.dir.link.warning

Severity

ERROR

Description

This event occurs as a warning when a parent directory reached its maximum hard link limit within a specified time interval and the no of parent directory reached maximum hard link limit is below the upper limit.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. create new subdirectories in a different parent directory. Alternatively, move some of the current parent directory's subdirectories to a different directory.

Syslog Message

A request to make a subdirectory in parent directory with fileid %d in volume %s%s could not be handled because the parent directory has reached its link limit; use a different parent directory or reduce the number of hard links by moving some of its subdirectories to a different directory.

Parameters

fileid (INT): File ID of the parent directory that has reached its maximum hard link limit.
vol (STRING): Name of the volume in which the parent directory resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory resides, when the volume name alone is insufficient.

wafl.dir.nt.max

Severity

ERROR

Description

This message occurs when an inode has reached its maximum number of NT streams.

Corrective Action

Reduce the number of streams on the file.

Syslog Message

Inode "%d" in volume "%s%s%s" has reached its maximum number of NT streams.

Parameters

fileId (INT): File identifier.
vol (STRING): Name of the volume in which the inode resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the inode is present.

wafl.dir.nt.warning

Severity

NOTICE

Description

This message occurs when an inode is nearing its maximum number of NT streams.

Corrective Action

(None).

Syslog Message

Inode "%d" in volume "%s%s%s" is nearing its maximum number of NT streams.

Parameters

fileId (INT): File identifier.
vol (STRING): Name of the volume in which the inode resides.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the inode is present.

wafl.dir.size.max

Severity

EMERGENCY

Description

This message occurs after a directory has reached its maximum directory size (maxdirsize) limit.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Reduce the number of files in the directory. If not possible, use the (privilege:advanced) option "volume modify -volume vol_name -maxdir-size new_value" to increase the maximum number of files per directory. However, doing so could impact system performance. If you need to increase the maximum directory size, contact NetApp technical support.

Syslog Message

Directory size for fileid "%d" in volume "%s%s" reached the maxdirsize limit.

Parameters

fileid (INT): File ID of the directory that has reached maximum size for directories in its volume.
vol (STRING): Volume in which the directory is present.
app (STRING): Application universal unique identifier(UUID).
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory resides, when the volume name alone is insufficient.

wafl.dir.size.max.warning

Severity

ERROR

Description

This message occurs when the size of a directory has reached or surpassed a configured percentage (default: 90%) of its current maximum directory size (maxdirsize) limit, and the current maxdirsize is less than the default maxdirsize, which is 1% of total system memory.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Reduce the number of files in the directory. If not possible, use the (privilege:advanced) option "volume modify -volume vol_name -maxdir-size new_value" to increase the maximum number of files per directory. However, doing so could impact system performance. If you need to increase the maximum directory size, contact technical support.

Syslog Message

Directory size for file ID "%d" in volume "%s%s" is approaching the maximum directory size (maxdirsize) limit.

Parameters

fileid (INT): File ID of the directory that has reached or is approaching the current maximum size for directories in its volume.
vol (STRING): Name of the volume in which the directory is located.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory is located, when the volume name alone is insufficient.

wafl.dir.size.warning

Severity

ALERT

Description

This message occurs when the size of a directory surpasses a configured percentage (default: 90%) of its current maximum directory size (maxdirsize) limit.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Reduce the number of files in the directory. If not possible, use the (privilege:advanced) option "volume modify -volume vol_name -maxdir-size new_value" to increase the maximum number of files per directory. However, doing so could impact system performance. If you need to increase the maximum directory size, contact NetApp technical support.

Syslog Message

Directory size for file ID "%d" in volume "%s%s" is approaching the maximum directory size (maxdirsize) limit.

Parameters

fileid (INT): File ID of the directory that has surpassed 90% of current maximum size for directories in its volume.
vol (STRING): Name of the volume in which the directory is located.
app (STRING): Application universal unique identifier(UUID).
volident (STRING): Unique volume identifier (UUID) of the volume in which the parent directory is located, when the volume name alone is insufficient.

wafl.dir.surrpair.filename

Severity

ERROR

Description

This message occurs as a warning when a file name with surrogate pair characters in UTF-16 encoding fails to be created in a parent directory.

Corrective Action

To allow names with surrogate pairs to be created, use the following command: "setflag wafl_reject_surrogate_pair 0". If the option needs to be set across reboots, set the bootarg 'wafl-accept-surrogate-pair?' to "true" at the LOADER prompt.

Failed to create a file with surrogate pair characters in the name in the directory %s.

Parameters

dir (STRING): Parent directory.

wafl.dirent events

wafl.dirent.illegal.encoding

Severity

ERROR

Description

This message occurs when a user attempts to use a directory entry name that is not supported by the virtual server's language setting.

Corrective Action

Use directory entry name with encoding that matches the virtual server's language setting.

Syslog Message

The encoding of directory entry name %s doesn't match the virtual server's language code %s.

Parameters

filename (STRING): The filename
langcode (STRING): Language code

wafl.disable events

wafl.disable.vol.guarantee

Severity

NOTICE

Description

This message occurs when the volume guarantee of a flexible volume is disabled due to aggregate space being physically overallocated.

Corrective Action

Remount the aggregate after creating space by increasing the aggregate size or by deleting/moving some volumes to the other aggregates. Use the "storage aggregate show-space" command to view the current space usage of the aggregate. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate snapshots are deleted automatically to make some space when the aggregate is full.

Syslog Message

Volume guarantee on volume "%s" is disabled after the aggregate "%s" becomes physically overallocated.

Parameters

> **vol** (STRING): Volume name whose guarantee is getting disabled.
> **aggr** (STRING): The aggregate name on which the volume whose guarantee is getting disabled resides.

wafl.dosname events

wafl.dosname.repair.fail

Severity

> ERROR

Description

> This message occurs when the system cannot correct duplicate dosnames present in a directory.

Corrective Action

> From the NFS client, check the directory for file or subdirectory names like {}. Rename these, and then run (privilege diag) the "wafl dosname" node shell command on the directory.

Syslog Message

> Dosname repair failed for file ID: %d volume %s:%s.

Parameters

> **fileid** (INT): Directory file ID where dosname repair failed.
> **vserver_uuid** (STRING): Universal Unique ID (UUID) of the volume's Vserver.
> **volume** (STRING): Volume name.

wafl.dosname.repair.success

Severity

> NOTICE

Description

> This message occurs when the "wafl dosname" command is completed successfully.

Corrective Action

> (None).

Syslog Message

> "wafl dosname" command successfully completed on volume %s:%s. Total files corrected: %d.

Parameters

> **vserver_uuid** (STRING): Universal Unique ID (UUID) of the volume's Vserver.
> **volume** (STRING): Volume name.
> **total** (INT): Total number of directory entries changed.

wafl.enc events

wafl.enc.aggrMFRecreated

Severity

NOTICE

Description

This message occurs when the system detects a corrupted WAFL aggregate encryption keys metafile and creates a corrected replacement.

Corrective Action

(None).

Syslog Message

"Recreated aggregate %s encryption keys metafile."

Parameters

aggr (STRING): Aggregate name.

wafl.enc.aggrMFRecreateFail

Severity

ALERT

Description

This message occurs when the system detects a corrupted WAFL aggregate encryption keys metafile and is unable to create a corrected replacement. The system might not be able to mount volumes.

Corrective Action

Contact NetApp technical support.

Syslog Message

"Failed to recreate aggregate %s encryption key metafile."

Parameters

aggr (STRING): Aggregate name.

wafl.encrypted events

wafl.encrypted.aggr.created

Severity

NOTICE

Description

This message occurs when a NetApp® Aggregate Encryption (NAE) aggregate is created.

Corrective Action

(None).

Syslog Message

NAE aggregate "%s" is created.

Parameters

Aggregate (STRING): Name of the aggregate.
KeyID_1 (STRING): Aggregate key ID of key1.
KeyID_2 (STRING): Aggregate key ID of key2.
KeyID_3 (STRING): Aggregate key ID of key3.
KeyID_4 (STRING): Aggregate key ID of key4.

wafl.encrypted.aggr.modified

Severity

NOTICE

Description

This message occurs when an aggregate is converted to a NetApp® Aggregate Encryption (NAE) aggregate.

Corrective Action

(None).

Syslog Message

Aggregate "%s" is converted to a NAE aggregate.

Parameters

Aggregate (STRING): Name of the aggregate.
KeyID_1 (STRING): Aggregate key ID of key1.
KeyID_2 (STRING): Aggregate key ID of key2.
KeyID_3 (STRING): Aggregate key ID of key3.
KeyID_4 (STRING): Aggregate key ID of key4.

wafl.encryption events

wafl.encryption.unsupported

Severity

ALERT

Description

This message occurs when the system takes offline an encrypted virtual volume because encryption became unsupported.

Corrective Action

Reenable support for encryption by setting the bootarg "bootarg.disable.volume.softwareencryption.support" to "false", reboot the system and then bring online the encrypted volume.

Syslog Message

Keeping encrypted volume "%s" (UUID: %s) offline because encryption has become unsupported.

Parameters

> **uuid** (STRING): UUID of the volume.
> **vol** (STRING): Volume name.

wafl.err events

wafl.err.L1.compacted.block

Severity

> NOTICE

Description

> This message occurs when a level 1 indirect block with given block number is not found in a compacted block.

Corrective Action

> (None).

Syslog Message

> Block number 0x%llx is not found in the compacted block.

Parameters

> **vvbn** (LONGINT): Volume block number.

wafl.extent events

wafl.extent.size.reset

Severity

> NOTICE

Description

> This message occurs when the volume extent option is set and WAFL® encounters an invalid extent size. This message indicates that the extent size was reset to a valid default value.

Corrective Action

> (None).

Syslog Message

> Extent size for volume %s was reset to %d.

Parameters

> **vol** (STRING): Name of the volume.
> **extent_size** (INT): New extent size.

wafl.failed events

wafl.failed.mount

Severity

EMERGENCY

Description

This message occurs when the ONTAP® kernel cannot mount a volume because of file system inconsistency.

Corrective Action

Contact NetApp technical support.

Syslog Message

WAFL inconsistent: Mount failed for volume %s%s%s%s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.failed.mount.bad.fsid

Severity

EMERGENCY

Description

This message occurs when DATA ONTAP® cannot mount a volume because of a hardware failure in the disk subsystem. The failure invalidates and clears the unique identifier (FSID) that was assigned to the volume at the time of creation, resulting in an invalid FSID value of 0 and making the volume inaccessible for clients. The volume will be left in the offline state without any data loss.

Corrective Action

Check for disk failures and replace any failed disks. A subsequent mount call for the volume, either from the boot path or an admin level online request, would be able to read a valid FSID now, thus solving this problem. For more information or assistance, contact NetApp technical support.

Syslog Message

Invalid file system identifier (FSID): Mount failed for volume %s%s%s%s.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name itself is insufficient.

wafl.failed.online.labelread

Severity

ERROR

Description

This message occurs if the system is unable to read a valid aggregate label from the disks which prevents onlining the aggregate.

Corrective Action

Contact NetApp technical support.

Syslog Message

Unable to read the label for aggregate ID "%d" and will not be online.

Parameters

fa_id (INT): Aggregate ID for which the label read fails.

wafl.failed.online.vol.info

Severity

ERROR

Description

This message occurs if the system is unable to read valid aggregate volume information from the disks which prevents onlining the aggregate.

Corrective Action

Contact NetApp technical support.

Syslog Message

Unable to read the volume information for aggregate ID "%d" and will not be online.

Parameters

fa_id (INT): Aggregate ID which fails to read the volume info.

wafl.failed.rootAggr.online

Severity

ERROR

Description

This message occurs if the system is unable to bring any of the aggregates online because the root aggregate cannot be onlined.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to online the root aggregate.

Parameters

(None).

wafl.fc events

wafl.fc.recl.csm.disconnect

Severity

EMERGENCY

Description

This message occurs when a FlexCache® origin node detects that its FlexCache volume has disconnected while a lock reclaim operation is in progress.

Corrective Action

Verify that the intercluster LIFs on both nodes are operational.

Syslog Message

FlexCache origin node with UUID %s detected potential disconnect with FlexCache with UUID %s while processing lock reclaims for the volume with MSID %u hosted on Vserver with UUID %s.

Parameters

localbladeuuid (STRING): Universally unique identifier (UUID) of the origin node.
bladeuuid (STRING): UUID of the FlexCache Cache node.
msid (LONGINT): Volume master data set identifier (MSID) of the FlexCache volume.
vserveruuid (STRING): UUID of the FlexCache Vserver.

wafl.fgmember events

wafl.fgmember.rollback

Severity

ERROR

Description

This message occurs when a member of a FlexGroup experiences an unexpected rollback in its state due to a loss of the NVRAM log for the member. This indicates that the volume might have inconsistencies between members.

Corrective Action

Run the fgiron tool against the FlexGroup to ensure consistency.

Syslog Message

FlexGroup %u member %u/%u detected a rollback.

Parameters

FlexGroupMSID (LONGINTHEX): Volume master data set identifier (MSID) of the FlexGroup that experienced a rollback due to NVRAM loss.
FlexGroupMemberMSID (LONGINTHEX): Volume master data set identifier (MSID) of the FlexGroup member that experienced a rollback due to NVRAM loss.
FlexGroupMemberDSID (LONGINTHEX): Volume data set identifier (DSID) of the FlexGroup member that experienced a rollback due to NVRAM loss.

wafl.filecg events

wafl.fileCG.vvol.size.exceeded

Severity

ERROR

Description

This message occurs when a volume with file-based compression(either secondary compression or 8k/16K/32K adaptive compression) have nominal size greater than 300TB.

Corrective Action

(None).

Syslog Message

Nominal size of the "%s" volume exceeded the 300TB limit.

Parameters

vvolname (STRING): Name of the volume.

wafl.fs events

wafl.fs.corrupt.fr.pct.changed

Severity

NOTICE

Description

This message occurs during volume mount, when the fractional reservation value for a volume is found to be corrupted. This is necessary because the storage system software only supports fractional reservation values of 0% and 100%. The guarantee type setting of a volume determines what the correct fractional reservation must be. For volumes with a guarantee type of VOLUME or NONE the value must be corrected to be 0%. For volumes with a guarantee type of FILE the value must be set to 100%.

Corrective Action

(None).

Syslog Message

The corrupted fractional reservation value for volume '%s%s%s' with guarantee type '%s' has been changed from %d%% to %d%%.

Parameters

vol (STRING): Name of the volume whose fractional reservation value was changed.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
guarantee_type (STRING): Guarantee type of the volume.
old_fr_pct (INT): Old fractional reservation value of the volume.
new_fr_pct (INT): New fractional reservation value of the volume.

wafl.fs.file.guarnt.upgraded

Severity

ERROR

Description

This message occurs during a volume upgrade, when the space guarantee style for a volume is changed to either "none" or "volume" (guarantee is disabled). This is necessary because Data ONTAP® no longer supports "file" space guarantee style for flexible volumes.

Corrective Action

Use the "volume show -volume <volume-name> -fields space-guarantee" command to display the volume's new space guarantee style. To modify the style to "volume", ensure that there is enough space in the aggregate, and then enter the "volume modify -vserver <vserver-name> -space-guarantee volume <volume-name>" command. To modify the style to "none" enter the "volume modify -vserver <vserver-name> -space-guarantee none <volume-name>" command.

Syslog Message

The space guarantee type for volume '%s%s%s' has been upgraded from file to %s.

Parameters

vol (STRING): Name of the volume whose file guarantee was changed.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
new_guarantee_type (STRING): New space guarantee type chosen for the volume.

wafl.fs.upgrade.fr.pct.changed

Severity

NOTICE

Description

This message occurs during a volume upgrade, when the fractional reservation value for a volume is checked and corrected. This is necessary because the storage system software only supports fractional reservation values of 0% and 100%. The guarantee type setting of a volume determines what the fractional reservation value must be. For volumes with a guarantee type of VOLUME or NONE the value must be set to 0%. For volumes with a guarantee type of FILE the value must be set to 100%.

Corrective Action

(None).

Syslog Message

The fractional reservation value for volume '%s%s%s' with guarantee type '%s' has been changed from %d%% to %d%%.

Parameters

vol (STRING): Name of the volume whose fractional reservation value was changed.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
guarantee_type (STRING): Guarantee type of the volume.
old_fr_pct (INT): Old fractional reservation value of the volume.
new_fr_pct (INT): New fractional reservation value of the volume.

wafl.fsa events

wafl.fsa.autosize.valid.fail

Severity

ERROR

Description

This message occurs when enabling file system analytics on a volume with autosize enabled fails because there is insufficient space in the volume.

Corrective Action

Increase the volume size or free space on the volume until there is at least 8% free space for transitioned volumes or 5% for non-transitioned ones. Use the "volume modify" command to increase volume size.

Syslog Message

Enabling file system analytics on %s "%s" in SVM "%s" with "%s" usage while its size is "%s" fails because there is insufficient space.

Parameters

volDesc (STRING): This message contains "transitioned volume" when the volume is a transitioned volume, otherwise, it contains "volume".
volName (STRING): Volume name.
vserverName (STRING): Name of the storage virtual machine (SVM) on which the volume resides.
spaceUsed (STRING): Space usage in the volume, represented in bytes.
volSize (STRING): Volume size, represented in bytes.

wafl.gd events

wafl.gd.alloc.size.rsrv.fail

Severity

ERROR

Description

This message occurs when reserving allocation size fails for a file using granular data because there is no space available in the volume.

Corrective Action

Create space by increasing the volume or aggregate sizes, or by deleting data or deleting snapshots. To increase a volume's size, use the "volume size" command. To delete a volume's snapshots, use the "volume snapshot delete" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate snapshots are deleted automatically when the aggregate is full.

Syslog Message

Reserving allocation size for fileid "%d" on volume "%s%s%s%s" fails because there is no space available in the volume.

Parameters

fileid (INT): File identifier.
owner (STRING): Owner of the volume.

vol (STRING): Name of the volume.
app (STRING): Application universal unique identifier (UUID).
volident (STRING): Volume identifier that uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.gd.convert.scan.running

Severity

NOTICE

Description

This message occurs when converting a file to use granular data fails because a scanner is currently running on the volume. The conversion cannot be completed until the scan is complete or filesystem inconsistencies can occur. Granular data conversion is required for non-disruptive file moves that occur as part of volume rebalancing.

Corrective Action

Retry the operation after some time to allow the scan to complete. If the problem persists, contact NetApp technical support for assistance.

Syslog Message

Granular data conversion failed for fileid "%d" on volume "%s%s%s%s" because scan "%s" is currently running on the volume.

Parameters

fileid (INT): File identifier.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Volume identifier that uniquely identifies the volume in cases where the volume name itself is insufficient.
scantype (STRING): Type of scan.

wafl.gd.convert.unknown.pvbn

Severity

NOTICE

Description

This message occurs when converting a file to use granular data fails because the file contains unresolved physical block numbers (PVBNs). Unresolved PVBNs occur when you move a volume to a different aggregate. PVBNs are resolved by a background process following the volume move.

Corrective Action

Retry the operation after some time to allow the background process to complete.

Syslog Message

Granular data conversion failed for fileid "%d" on volume "%s%s%s%s" because the inode contains unresolved PVBNs.

Parameters

> **fileid** (INT): File identifier.
> **owner** (STRING): Owner of the volume.
> **vol** (STRING): Name of the volume.
> **app** (STRING): Application UUID.
> **volident** (STRING): Volume identifier that uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.giveback events

wafl.giveback.create.fail

Severity

> ERROR

Description

> This message occurs when the system cannot perform a giveback due to vol create, and must abort giveback.

Corrective Action

> A volume is being created. Wait for volume creation to finish and then retry giveback.

Syslog Message

> %s %s%s%s%s is being created; canceling giveback.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.giveback.fence.fail

Severity

> ERROR

Description

> This message occurs when the system cannot perform a giveback operation because a fence is set on one of the volumes in the aggregate. The giveback operation is aborted.

Corrective Action

> A volume in the aggregate is currently fenced for group operations. Retry giveback after any group SnapRestore® or mirror transfers are complete. If the problem persists, contact technical support.

Syslog Message

> %s %s%s%s%s has a fence set; canceling giveback.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.giveback.iron.fail

Severity

ERROR

Description

This message occurs when the system cannot perform a giveback due to wafliron, and must abort giveback.

Corrective Action

(Call support).

Syslog Message

%s %s%s%s%s has vol wafliron start underway; canceling giveback.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.giveback.sp.fail

Severity

ERROR

Description

This message occurs when the system cannot perform a giveback operation because a secure purge operation is being performed on one of the volumes in the aggregate. The giveback operation is aborted.

Corrective Action

A volume in the aggregate is undergoing a secure purge operation. Retry giveback after this operation is complete, or after you abort the operation by using the "volume encryption secure-purge abort" command. If the problem persists, contact NetApp technical support.

Syslog Message

A secure purge operation is in progress on %s %s%s%s. Canceling giveback.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.giveback.statusvol.fail

Severity

ERROR

Description

This message occurs when the system cannot perform a giveback due to the volume being used to host wafliron status files.

Corrective Action

Use "aggr wafliron show" command to monitor the status of wafliron and retry giveback after the completion of wafliron that uses the status files hosting volume.

Syslog Message

%s %s%s%s%s is being used by wafliron to host status files. Canceling giveback.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.giveback.vetoedByNvsave

Severity

ERROR

Description

This message occurs when a high-availability (HA) giveback is vetoed because there are NVSave files for an aggregate or a flexible volume that must be replayed before the aggregate or flexible volume can be given back.

Corrective Action

Retry the giveback operation after the NVSave files either are replayed (by bringing the aggregate or flexible volume online) or are deleted from the root volume. Successful replay, for example, is indicated by the EMS message 'wafl.nvsave.replaying.pass'.

Syslog Message

Giveback vetoed because NVSave files are present for %s FSID %d name %s%s%s. UUID is %s.

Parameters

vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.
fsid (INT): File system identifier.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.
UUID (STRING): UUID of the volume.

wafl.gs events

wafl.gs.metafile.load.failed

Severity

ERROR

Description

This message occurs when wafl is unsuccessful to check and load Granular Set metafile for the volume.

Corrective Action

Issue volume offline followed by volume online and confirm this error message does not happen again. For more information or assistance, contact NetApp technical support.

Syslog Message

Wafl failed to load metafile that stores wafl copy of SnapMirror CG.

Parameters

volume (STRING): Volume name.
error (INT): Error code.

wafl.gs.modify.op.failed

Severity

NOTICE

Description

This message occurs when WAFL® prohibits loading a file for a modify operation on a read-only consistency group.

Corrective Action

NONE.

Syslog Message

Failed to load file ID %u on volume %s%s%s%s FSID:%u for a modify operation because it is part of a read-only sync relationship.

Parameters

fileid (INT): File identifier.
volowner (STRING): Owner of the volume.
volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient. Consists of the Vserver name and UUID.
fsid (INT): File system ID of the volume.

wafl.gs.remove.rename.op.failed

Severity

NOTICE

Description

This message occurs when WAFL® prohibits a rename operation or an unlink operation on a file part of a consistency group.

Corrective Action

NONE.

Syslog Message

Failed to load file ID %u on volume %s%s%s%s FSID:%u for a rename operation or an unlink operation because it is part of a sync relationship.

Parameters

fileid (INT): File identifier.
volowner (STRING): Owner of the volume.
volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient. Consists of the Vserver name and UUID.
fsid (INT): File system ID of the volume.

wafl.gs.resync.gen.check.failed

Severity

NOTICE

Description

This message occurs when WAFL® prohibits modification to a file that is part of a consistency group and the operation does not have the right generation enforcement parameters. This can occur if the operation happened before the SnapMirror® relationship was established.

Corrective Action

NONE.

Syslog Message

Unexpected operation on consistency group file ID %u on volume %s%s%s%s FSID:%u. This can occur if the operation happened before the SnapMirror relationship was established.

Parameters

fileid (INT): File identifier.
volowner (STRING): Owner of the volume.
volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient. Consists of the Vserver name and UUID.
fsid (INT): File system ID of the volume.

wafl.hya events

wafl.hya.aggr.policy.init

Severity

INFORMATIONAL

Description

This message occurs when the default caching policies are to be configured on all volumes contained in this aggregate.

Corrective Action

(None).

Syslog Message

Attempting to configure the default caching policies on all volumes in the aggregate '%s %s'.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.

wafl.hya.bc.add.cbi

Severity

INFORMATIONAL

Description

This message occurs when a hybrid aggregate adds one counter file block (CBI - counter block index).

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr (STRING): Aggregate name.
aggr_uuid (STRING): Universal Unique ID (UUID) of the aggregate.
volume (STRING): Volume name.
volume_uuid (STRING): UUID of the volume.
btid (LONGINT): Buftree ID.
cbi (INT): CBI value.
volume_info (STRING): Volume type information.

wafl.hya.bc.del.flexvol

Severity

INFORMATIONAL

Description

This message occurs when a hybrid aggregate block accounting module receives a FlexVol® deletion notification.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr (STRING): Aggregate name.
aggr_uuid (STRING): UUID of the aggregate.
volume (STRING): Volume name.
volume_uuid (STRING): UUID of the volume.
volume_info (STRING): Volume type information.
btid (LONGINT): Buftree ID.
cbi (INT): CBI (counter block index) value.
ctr0 (LONGINT): Counter 0, total used blocks by this buftree ID at the time of the delete event.

wafl.hya.bc.free.cbi

Severity

INFORMATIONAL

Description

This message occurs when a hybrid aggregate block accounting module frees a CBI (counter block index).

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr (STRING): Aggregate name.
aggr_uuid (STRING): UUID of the aggregate.
btid (LONGINT): Buftree ID.
cbi (INT): CBI value.
ctr0 (LONGINT): Counter 0, total used blocks by this buftree ID at the time of the free event.

wafl.hya.cache.ret.policy

Severity

INFORMATIONAL

Description

This message occurs when the cache retention priority policy for a volume in a hybrid aggregate has been modified.

Corrective Action

(None).

Syslog Message

Cache retention priority policy on volume '%s%s%s%s' has been modified to %s.

Parameters

owner (STRING): Owner of the volume.

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
cache_retention_priority (STRING): Cache retention priority policy configured on the volume.

wafl.hya.policy.init.skipped

Severity

INFORMATIONAL

Description

This message occurs when cache policies could not be configured because of an invalid volume state.

Corrective Action

(None).

Syslog Message

Default caching policies were not set on volume '%s%s%s'.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.hya.rcache.policy

Severity

INFORMATIONAL

Description

This message occurs when the read caching policy for a volume in a hybrid aggregate has been modified.

Corrective Action

(None).

Syslog Message

Read caching policy on volume '%s%s%s%s' has been modified to '%s'.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
read_policy (STRING): Read caching policy configured on the volume.

wafl.hya.sizer.warning

Severity

NOTICE

Description

This message occurs when Flash Pool (tm) AWA (Automatic Workload Analyzer) encounters an abnormal condition such as low sampling rate or low memory resource.

Corrective Action

Contact NetApp technical support for assistance in resolving this issue.

Syslog Message

(None).

Parameters

aggr (STRING): Aggregate name.
aggr_uuid (STRING): UUID of the aggregate.
vol (STRING): Name of the volume.
event_info (STRING): Flash Pool (tm) Sizer warning information.

wafl.hya.wcache.policy

Severity

INFORMATIONAL

Description

This message occurs when write caching policy for a volume in a hybrid aggregate has been modified.

Corrective Action

(None).

Syslog Message

Write caching policy on volume '%s%s%s%s' has been modified to '%s'.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
write_policy (STRING): Write caching policy configured on the volume.

wafl.i2p events

wafl.i2p.entries.mismatch

Severity

NOTICE

Description

This message occurs when the ONTAP® kernel detects that an i2p metafile on one of the snapshot has more entries than necessary for an inode.

Corrective Action

(None).

Syslog Message

There are more entries in the i2p metafile than there should be in volume %s%s%s%s, for inode %d in snapshot %d.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases where the volume name itself is insufficient.
fileid (INT): Identifying number for the suspect inode.
snapid (INT): The snapshot identifier.

wafl.i2p.fix.parent.pointer

Severity

NOTICE

Description

This message occurs when an inode-to-parent (i2p) scan detects and rectifies an incorrect parent inode number or cookie in an inode while fixing i2p data in a converted directory.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s: Inode %u, fixing parent pointer, was: (parent: %u, cookie: 0x%x).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
inode (INT): Inode number.
old_parent_inode (INT): Existing parent inode number.
old_cookie (INT): Existing parent cookie.

wafl.ialloc events

wafl.ialloc.is.disabled

Severity

NOTICE

Description

This message occurs when an inode allocation in a stripe is disabled.

Corrective Action

(None).

Syslog Message

Inode allocation in stripe is disabled for %s inode space.

Parameters

ino_type (STRING): Inode type.

wafl.inaccessible events

wafl.inaccessible.userdata

Severity

ERROR

Description

This message occurs when an access request is received for inaccessible user data (area blocked by wafliron).

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Recover the file from a backup. For a SnapMirror® target, rebuild from the source or resynchronize. If the block is in a snapshot, delete the snapshot. Contact NetApp technical support for more options.

Syslog Message

Inaccessible user data block at FBN %llu Level %u in %s inode (file ID:%s snapshot ID:%u file_type:%d disk_flags:0x%x) in volume %s%s%s%s.

Parameters

fbn (LONGINT): File block number.
level (INT): Buffer level.
file_space (STRING): File space.
fileid (STRING): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
type (INT): File type.
flags (LONGINT): Inode disk flags.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.incomplete events

wafl.incomplete.i2p

Severity

ERROR

Description

This event occurs when the WAFL® kernel detects incomplete inode to path information for an inode on disk. This will cause the inode to path database to be reconstructed.

Corrective Action

No immediate action is required. The Inode to Path database will be reconstructed in the background. Please contact NetApp technical support or disable i2p using the volume option no_i2p.

Syslog Message

Incomplete Inode to Path information detected in volume %s%s%s%s. I2P data will be reconstructed.

Parameters

owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
func (STRING): The internal function name
fileid (INT): The identifying number for the suspect inode
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot
reason (STRING): An indication of the nature of the event.

wafl.incons events

wafl.incons.compr.metadata

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects inconsistent compression metadata for a compression group.

Corrective Action

If the snapshot ID (snapid) is 0, the inconsistency is in the active file system and you need to run wafliron. To run wafliron, first find the aggregate the volume belongs to by running the "volume show -volume [vol_name]" command. Then enter diag mode by using the "set diagnostic" command, and start wafliron by running the command: "storage aggregate wafliron start -aggregate [aggr_name]". If the snapid is not 0, then run the "snapshot show -volume [vol-name] -instance" command, and then delete the snapshot whose Snap ID field matches the given snapid.

Syslog Message

WAFL inconsistent: bad compression indirect found (level:%u compression group first vbn:%llu) in %s inode (fileid:%d snapid:%u) in volume %s%s%s%s.

Parameters

level (INT): Metadata level.
cg_first_vbn (LONGINT): First block of the compression group in which the inconsistency was found.
ino_type (STRING): Inode type.
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.incons.compressed.buf

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects an inconsistent compressed block on a disk.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Restore the inconsistent file from the snapshot.

Syslog Message

WAFL inconsistent: bad compressed block at VBN %llu (vvbn:%llu fbn:%llu level:%u compression group first vbn:%llu compression group size %d) in %s inode (fileid:%d snapid:%u) in volume %s%s%s%s.

Parameters

vbn (LONGINT): Volume block number.
vvbn (LONGINT): Virtual block number.
fbn (LONGINT): File block number.
level (INT): Buffer level.
cg_first_vbn (LONGINT): First block of the compression group in which the inconsistency was found.
cg_size (INT): Number of allocated blocks in the compression group.
ino_type (STRING): Inode type.
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.incons.objslothdr.buf.fixup.required

Severity

INFORMATIONAL

Description

This message occurs when number of inconsistent objslothdr entries are more than threshold on a FabricPool aggregate with unified format enabled.

Corrective Action

For further assistance, contact NetApp technical support.

Syslog Message

Number of inconsistent objslothdr entriesi(%d) are more than threshold. For further assistance, contact NetApp technical support.

Parameters

invalid_entry_count (INT): Number of invalid entries present in slothdr metafile.
aggregate_name (STRING): Aggregate name.

wafl.incons.snap.metadata

Severity

ERROR

Description

This message occurs when a snapshot or its metadata is found to be inconsistent.

Corrective Action

Delete the inconsistent snapshot by using the "volume snapshot delete" command.

Syslog Message

WAFL inconsistent: Inconsistent snapshot found in volume %s%s%s%s with snapshot ID %d. Reason: %s.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapid (INT): Snapshot identifier.
reason (STRING): Reason the snapshot is bad.

wafl.incons.tlog

Severity

ERROR

Description

This message occurs when an object cannot be written to the object store due to a corrupted data block within one of the metafiles.

Corrective Action

Contact NetApp technical support for further assistance.

Syslog Message

Inconsistency found in the staging metafile in FabricPool aggregate %s. Skip writing object to object store due to bad block (pvbn %llu).

Parameters

aggrname (STRING): Name of the aggregate.
pvbn (LONGINT): Unloadable block number that resulted in skipping a write of the corresponding object to the object store.

wafl.incons.userdata.vol

Severity

ALERT

Description

This message occurs when the WAFL® kernel discovers an inconsistent volume with bad user data blocks.

Corrective Action

The volume has an inconsistent user data block. Use the fileid and volume name information to run the 'inodepath' command. The 'inodepath' command will output the path name for the fileid. Recover the file from a backup. For a SnapMirror® target, rebuild from the source or resynchronize. If the block is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: %s %s%s%s%s has an inconsistent user data block. Note: Any new snapshots might contain this inconsistency.

Parameters

type (STRING): Container type (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
vendor (STRING): Vendor name.

wafl.inconsistent events

wafl.inconsistent.acl

Severity

ERROR

Description

This message occurs when the ONTAP® kernel detects an inconsistent WAFL® Access Control List (ACL) on disk. Access to this ACL is disabled until you repair it by running wafliron.

Corrective Action

Contact NetApp technical support.

Syslog Message

WAFL inconsistent: bad ACL (xfileid:%u snapid:%u) for inode (fileid:%u) in volume %s%s%s%s.

Parameters

xfileid (INT): Identifying number for the suspect ACL.
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot.
fileid (INT): Identifying number for the inode.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.inconsistent.acl.data

Severity

ERROR

Description

This message occurs when Data ONTAP detects inconsistent Access Control List (ACL) data on disk.

Corrective Action

The volume has inconsistent Access Control List (ACL) data. Use the "volume file show-inode" command with the file ID and volume name information to find the file path. .Rebuild ACL for the file.

Syslog Message

WAFL inconsistent: bad ACL data (acl_fileid:%u acl_snapid:%u) for inode (fileid:%u snapid:%u file_type:%d disk_flags:0x%x) in volume %s%s%s%s%s.

Parameters

acl_fileid (INT): Identifying number for the ACL inode
acl_snapid (INT): Snapshot identifier for ACL inode: (0) - active file system (non-zero) - refers to snapshot
fileid (INT): Identifying number for the inode that owns the ACL.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
type (INT): File type.
flags (LONGINT): Inode disk flags.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.
inotype (STRING): The inode space (public or private)

wafl.inconsistent.compacted.block

Severity

NOTICE

Description

This message occurs when an inconsistency is detected in a compacted block.

Corrective Action

(None).

Syslog Message

Inconsistent compacted block %llu in %s "%s". %s

Parameters

pvbn (LONGINT): Volume block number.
volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.
message (STRING): Type of inconsistency in compacted block.

wafl.inconsistent.container

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects a block in a FlexVol® volume that is inaccessible. Access to this block is disabled until you repair it by running wafliron.

Corrective Action

The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency. For a SnapMirror® target, rebuild from the source or resynchronize. If the inode is in a snapshot, delete the snapshot, then contact NetApp technical support.

Syslog Message

WAFL inconsistent: Volume %s%s%s%s has unreachable block at vvbn %llu (pvbn %llu).

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
vvbn (LONGINT): Virtual block number.
pvbn (LONGINT): Physical block number.

wafl.inconsistent.dir

Severity

ALERT

Description

This event occurs when the WAFL® kernel detects an inconsistent directory on disk. Access to this directory is disabled until you repair it by running wafliron.

Corrective Action

The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency; for a snapmirror target, rebuild from source or resync or if inode is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: %s: bad directory (%s fileid:%u, snapid: %u, type:%u, size:%u) in volume %s%s%s%s.

Parameters

func (STRING): The internal function name
ino_type (STRING): The inode type
fileid (INT): The identifying number for the suspect inode
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot
type (INT): The type of inode that's supposed to be a directory of some type
size (INT): The possibly corrupt size of the suspect inode.
owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.inconsistent.dirent

Severity

EMERGENCY

Description

This event occurs when an inconsistent directory entry has been detected. Access to this directory entry is disabled.

Corrective Action

If this error condition occurs, contact NetApp technical support for further assistance.

Syslog Message

WAFL inconsistent: %s: bad entry {x%x %d snapid: %d %d %d} <%.*s> in %s directory {x%x %d snapid: %d %d %d} in volume %s%s%s%s.

Parameters

func (STRING): The internal function name
fh0 (INT): fh[0]
fh1 (INT): fh[1] - snapid (0) - active file system (non-zero) - refers to snapshot
fh2 (INT): fh[2]
fh3 (INT): fh[3]
fh4 (INT): fh[4]
name (STRINGARRAY): The name of the directory entry
ino_type (STRING): The inode type
dfh0 (INT): dfh[0]
dfh1 (INT): dfh[1] - snapid in filehandle (0) - active file system (non-zero) - refers to snapshot
dfh2 (INT): dfh[2]
dfh3 (INT): dfh[3]
dfh4 (INT): dfh[4]
owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.inconsistent.ino

Severity

ERROR

Description

This message occurs when the ONTAP® kernel detects an inconsistent inode on disk. Access to this inode is disabled until you repair it by running wafliron.

Corrective Action

Contact NetApp technical support.

Syslog Message

WAFL inconsistent: %s: bad inode (%s fileid: %u snapid: %u) in volume %s%s%s%s.

Parameters

func (STRING): Internal function name.
ino_type (STRING): Inode type.
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.

app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

wafl.inconsistent.ino.tid

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects an inconsistent inode on a disk with a bad qtree ID.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency. For a SnapMirror target, rebuild from the source or resynchronize. If the inode is in a snapshot, delete the snapshot. Then contact technical support.

Syslog Message

WAFL inconsistent: bad qtree ID in inode (fileid:%u snapid:%u) in volume %s%s. Turning quotas off on the volume.

Parameters

fileid (INT): Identifying number for the suspect inode
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume
vol (STRING): Name of the volume

wafl.inconsistent.snapshot

Severity

ERROR

Description

This event occurs when the WAFL kernel discovers that a snapshot has either an invalid inofile, fsinfo, or snapmap file, or the snapshot vbn stored is invalid.

Corrective Action

Delete the snapshot. For a snapmirror target, rebuild from source or resync.

Syslog Message

WAFL inconsistent: deleting bad snapshot in volume %s%s%s%s, snapid %d, reason: %s

Parameters

owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
snapid (INT): The snapshot identifier
reason (STRING): The reason the snapshot is bad

wafl.inconsistent.stream

Severity

ERROR

Description

This event occurs when the WAFL® kernel detects an inconsistent stream information on disk. Access to the stream is disabled until you repair it by running wafliron.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency; for a snapmirror target, rebuild from source or resync or if the inode is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: bad stream (sfileid:%u snapid: %u) for inode (fileid:%u) in volume %s%s%s%s.

Parameters

sfileid (INT): The identifying number for the suspect stream
snapid (INT): Snapshot identifier (0) - active file system (non-zero) - refers to snapshot
fileid (INT): The identifying number for the inode
owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.inconsistent.threshold.reached

Severity

EMERGENCY

Description

This event occurs when the number of inconsistencies the WAFL® kernel detected and avoided reached the threshold.

Corrective Action

The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency; for a snapmirror target, rebuild from source or resync or if the inode is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: The threshold for number of %s inconsistencies was reached. Volume %s %s%s%s%s will be taken offline. Contact NetApp technical support.

Parameters

reason (STRING): Reason : snapshot/inode/block
type (STRING): The container type (volume / aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

vendor (STRING): The vendor name

wafl.inconsistent.vol

Severity

ERROR

Description

This event occurs when the WAFL® kernel discovers an inconsistent volume.

Corrective Action

The volume is inconsistent. Run wafliron as soon as possible to clear this inconsistency; For a SnapMirror® target, rebuild from source or resynchronize. If the inode is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: %s %s%s%s%s is inconsistent. Note: Any new snapshots might contain this inconsistency.

Parameters

type (STRING): The container type (volume / aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
vendor (STRING): The vendor

wafl.inconsistent.vol.nomnt

Severity

ERROR

Description

This message occurs when the ONTAP® kernel discovers an inconsistent volume and determines that the volume should not be mounted.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s %s%s is not mounted.

Parameters

type (STRING): Container type (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.

wafl.ino events

wafl.ino.upgrade.aborted

Severity

INFORMATIONAL

Description

This message occurs when an inode upgrade for the specified WAFL volume or aggregate is aborted.

Corrective Action

(None).

Syslog Message

Inode upgrade of volume or aggregate '%s %s' has been aborted.

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.cantAbort

Severity

NOTICE

Description

This message occurs when an attempt to abort the inode upgrade scan by using the "wafl scan abort" command. The inode upgrade scan cannot be interrupted.

Corrective Action

Wait for the inode upgrade to finish or use the "{ vol | aggr } inode-upgrade suspend" command to stop the scan.

Syslog Message

User cannot abort the inode upgrade scan. Use the '{ vol | aggr } inode-upgrade suspend' command.

Parameters

(None).

wafl.ino.upgrade.completed

Severity

INFORMATIONAL

Description

This message occurs when the inode upgrade of the specified WAFL volume or aggregate is complete.

Corrective Action

(None).

Syslog Message

An inode upgrade to version %d for volume or aggregate '%s %s' has completed.

Parameters

to_version (INT): Version the inode upgraded to.
owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.disabled

Severity

ALERT

Description

This message occurs when the inode upgrade is disabled on the node via the "wafl_v4ino_upgrade_disable" bootarg. All aggregates and volumes are still usable, but there might be some features that cannot be enabled on certain volumes until the inode upgrade is completed on those volumes.

Corrective Action

Contact technical support for assistance.

Syslog Message

Inode upgrade is disabled on this node.

Parameters

(None).

wafl.ino.upgrade.rem.mdata

Severity

INFORMATIONAL

Description

This message occurs when inode upgrade metadata was removed either by administrator actions or due to wafliron.

Corrective Action

(None).

Syslog Message

Inode upgrade metadata for volume or aggregate '%s %s' has been removed.

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.resumed

Severity

INFORMATIONAL

Description

This message occurs when an inode upgrade of the specified WAFL volume or aggregate is resumed.

Corrective Action

(None).

Syslog Message

An inode upgrade for volume or aggregate '%s %s' was resumed.

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.stalled

Severity

NOTICE

Description

This message occurs when the administrator suspended an inode upgrade for the specified WAFL volume or aggregate sometime in the past. The volume or aggregate is still usable, but there might be some features that cannot be enabled until the inode upgrade is complete.

Corrective Action

Use the command 'volume inode-upgrade resume "volume"' or 'storage aggregate inode-upgrade resume "aggregate"' to resume the upgrade.

Syslog Message

Inode upgrade of volume or aggregate '%s %s' is suspended.

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.started

Severity

INFORMATIONAL

Description

This message occurs when the inode upgrade for the specified WAFL volume or aggregate begins.

Corrective Action

(None).

Syslog Message

An inode upgrade from version %d for volume or aggregate '%s %s' has begun.

Parameters

from_version (INT): Current inode version.
owner (STRING): Owner of the volume or aggregate.

volname (STRING): Name of the volume or aggregate.

wafl.ino.upgrade.susp

Severity

INFORMATIONAL

Description

This message occurs when an inode upgrade for the specified WAFL volume or aggregate is suspended by the administrator or because wafliron is running. The volume or aggregate is still usable, but there might be some features that cannot be enabled until the inode upgrade is complete.

Corrective Action

(None).

Syslog Message

An inode upgrade for volume or aggregate '%s %s' was suspended. Reason %s. Metadata was %s.

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.
reason (STRING): Reason the upgrade was suspended.
metadata_removed (STRING): Atring indicating whether metadata was removed as part of the suspension.

wafl.ino.upgrade.susp.nospc

Severity

ERROR

Description

This message occurs when an inode upgrade for the specified WAFL volume or aggregate is suspended due to a lack of space. The volume or aggregate is still usable, but there might be some features that cannot be enabled until the inode upgrade is complete.

Corrective Action

Ensure that the volume or aggregate has at least as many bytes available for use as indicated by 'space_required'. Simply add the space to the volume and the upgrade is automatically retried.

Syslog Message

An inode upgrade for volume or aggregate '%s %s' was suspended due to a lack of space (space required: %d bytes).

Parameters

owner (STRING): Owner of the volume or aggregate.
volname (STRING): Name of the volume or aggregate.
space_required (LONGINT): Estimated amount of disk space required, in bytes, to complete the upgrade.

wafl.inode events

wafl.inode.cache.highLoad

Severity

INFORMATIONAL

Description

This message occurs when the in-memory inode cache is under high load and fully utilized. The system will likely experience high cache miss rates and some file system operations might experience delays due to increased disk activity, but that is the extent of the problem.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

wafl.inode.fileAttr.fail

Severity

ERROR

Description

This message occurs when the system discover that an inode to file attribute translation is unsuccessful due to an unexpected file type. The fh parameters represent the filehandle.

Corrective Action

The filesystem being accessed is inconsistent. If the filesystem is read-write and if the system is booted in read-only mode then reboot in normal (read-write) mode and run wafliron as soon as possible to clear this inconsistency. For all other cases contact NetApp technical support.

Syslog Message

wafl_inode_to_file_attr: unexpected file type 0%o in %s {x%x %d %d %d %d}.

Parameters

type (INT): The unexpected type
ino_type (STRING): The inode type
fh0 (INT): fh[0]
fh1 (INT): fh[1]
fh2 (INT): fh[2]
fh3 (INT): fh[3]
fh4 (INT): fh[4]

wafl.inode.fill.noDisblRsvFO

Severity

NOTICE

Description

This message occurs when the system cannot disable the fill reservation for a file or LUN. This happens when the file or LUN is the destination of an ongoing file operation that is currently in the Allocation_Map phase.

Corrective Action

Verify that the indicated file operation has completed the Allocation_Map phase and rerun the original command.

Syslog Message

Cannot disable fill reservation for inode %u in volume %s%s%s due to %s job %s-%u.

Parameters

ino (INT): Inode number.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
type (STRING): Operation type: file copy, file move, LUN copy, or LUN move.
job_uuid (STRING): Job UUID of the file operation.
file_index (INT): File index of the file operation.

wafl.inofile events

wafl.inofile.buf.badHeader

Severity

ERROR

Description

This event can occur when a snapshot's inofile buffer header has the wrong magic or file block number.

Corrective Action

Contact customer support.

Syslog Message

Bad header in snapshot %s inofile in %s %s%s%s%s, snapid %d, fbn %llu, vbn %llu, cp_count %u was magic 0x%x, fbn %llu, cp_count %u

Parameters

ino_type (STRING): The type of inofile
type (STRING): The type of object (volume/aggregate)
owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
snapid (INT): The snapshot identifier
fbn (LONGINT): The file block number
vbn (LONGINT): The volume block number
cp_count (INT): The volume CP count
omagic (INT): The magic number in the header
ofbn (LONGINT): The file block number in the header
ocp_count (INT): The CP count in the header

wafl.iron events

wafl.iron.7mode

Severity

ERROR

Description

This message occurs when wafliron is running on a transitioned aggregate in precommit phase and there are 7-Mode volumes present. Wafliron ignores the 7-Mode volumes.

Corrective Action

Run the "storage transition aggregate start" command to convert the aggregate to a cluster aggregate.

Syslog Message

Transitioned aggregate %s has 7-Mode volumes which cannot be ironed.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.iron.abort.noConToCloud

Severity

EMERGENCY

Description

This message occurs when the file system consistency checker (wafliron) aborts because the connection to the cloud service provider is not available.

Corrective Action

Restore the connection to the cloud service provider, then retry the "aggr wafliron start <aggr_name>" command.

Syslog Message

File system consistency checker aborted on aggregate "%s". The connection to the cloud service provider is not available.

Parameters

aggrname (STRING): Aggregate name.

wafl.iron.abort.offline

Severity

NOTICE

Description

This message occurs when wafliron is aborted and the aggregate or volume is taken offline. This will occur if the aggregate or volume is inconsistent at the time of abort or if wafliron was invoked in optional commit mode. If wafliron was invoked in optional commit mode, all changes are rejected because they might not be consistent.

Corrective Action

No corrective action is required for this notification event. Wafliron automatically takes an inconsistent aggregate or volume offline. Wafliron automatically takes the aggregate offline in optional commit mode.

Syslog Message

Wafliron was aborted on %s%s '%s'; the aggregate or volume was taken offline.

Parameters

volinfo (STRING): Descriptive information about the volume, such as whether it was inconsistent when taken offline.
voltype (STRING): Aggregate or flexible volume.
aggrname (STRING): Aggregate or flexible volume name.

wafl.iron.abort.offlineFail

Severity

NOTICE

Description

This message occurs when wafliron is aborted and taking an inconsistent aggregate or volume offline was not successful.

Corrective Action

(Call support).

Syslog Message

Wafliron abort failed to take offline inconsistent %s '%s': %s.

Parameters

voltype (STRING): Aggregate or flexible volume.
aggrname (STRING): Aggregate or flexible volume name.
errmsg (STRING): Error message.

wafl.iron.abort.offlineMsg

Severity

NOTICE

Description

This message occurs when the wafliron operation is aborted. Taking the aggregate offline was not successful.

Corrective Action

(None).

Syslog Message

Wafliron abort on %s '%s': %s.

Parameters

voltype (STRING): Aggregate.
aggrname (STRING): Aggregate name.

errmsg (STRING): Error message.

wafl.iron.backup.exists

Severity
NOTICE

Description
This message occurs when a SnapIron backup image already exists on the volume. Wafliron will continue to run without creating another SnapIron backup image.

Corrective Action
(Call support).

Syslog Message
A SnapIron backup image %s already exists on %s.

Parameters
vol (STRING): Volume name.
name (STRING): Name of the backup image.

wafl.iron.backup.expired

Severity
INFORMATIONAL

Description
This message occurs when a SnapIron backup image expires and will be deleted.

Corrective Action
(None).

Syslog Message
The SnapIron backup image %s of %s expired.

Parameters
name (STRING): Name of the backup image being deleted.
vol (STRING): Volume name.

wafl.iron.backup.expiring

Severity
NOTICE

Description
This message occurs when a SnapIron backup image is close to expiring.

Corrective Action
Pay attention to the integrity of the data on this volume before the backup image expires and is subsequently deleted by automatic deletion of aggregate snapshots. Contact NetApp technical support.

The SnapIron backup image %s of %s will expire in %d hour(s).

Parameters

name (STRING): Name of the backup image.
vol (STRING): Volume name.
hours (INT): Number of hours remaining from the lifetime of the backup image.

wafl.iron.backup.impossible

Severity

NOTICE

Description

This message occurs when wafliron encounters a problem when creating a SnapIron backup image. The message explains the reason. Wafliron will continue to run without the SnapIron backup image.

Corrective Action

(None).

Syslog Message

Wafliron could not create a SnapIron backup image on %s, %s.

Parameters

vol (STRING): Volume name.
reason (STRING): Reason for not being able to create a SnapIron backup image.

wafl.iron.backup.removed

Severity

NOTICE

Description

This message occurs when a SnapIron backup image is removed. Wafliron will continue to run without a SnapIron backup image if it is running.

Corrective Action

(None).

Syslog Message

The SnapIron backup image %s of %s was deleted.

Parameters

name (STRING): Name of the backup image being deleted.
vol (STRING): Volume name.

wafl.iron.backup.rst.failed

Severity

ALERT

Description

The message occurs when the system cannot restore the aggregate from the wafliron backup image. The active file system will be loaded.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failed to restore %s %s%s%s%s from its wafliron backup image (ID %d). The active file system will be loaded.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
id (INT): Backup image ID.
reason (STRING): Reason for the failure.

wafl.iron.backup.rst.noExist

Severity

NOTICE

Description

The message occurs when the system cannot restore the aggregate from the wafliron backup image because the image does not exist. The active file system will be loaded.

Corrective Action

(None).

Syslog Message

Could not restore %s %s%s%s%s from its wafliron backup image because the image does not exist. The active file system will be loaded.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.iron.backup.rst.success

Severity

INFORMATIONAL

Description

The message occurs when the system restores the aggregate from its wafliron backup image.

Corrective Action

(None).

Syslog Message

Restored %s %s%s%s%s from its wafliron backup image (ID %d).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
id (INT): Backup image ID.

wafl.iron.backup.snaprsv.inc

Severity

INFORMATIONAL

Description

This message occurs when wafliron tries to increase the snapshot reserve of the aggregate temporarily to allow keeping the SnapIron backup image longer. The message shows whether the attempt was successful.

Corrective Action

(None).

Syslog Message

The attempt to increase snapshot reserve of %s temporarily from %d percent by %d %s.

Parameters

vol (STRING): Volume name.
rsv (INT): Old value of the aggregate snapshot reserve, in percentage.
delta (INT): Change in the new value of the aggregate snapshot reserve, in percentage. If the snapshot reserve was successfully increased, it will be returned to its original value automatically after the SnapIron backup image expires, the new snapshot reserve space becomes full again, or the snapshot is deleted. In the latter case, the SnapIron backup image will be deleted by automatic deletion of aggregate snapshots.
result (STRING): Whether the attempt was successful.

wafl.iron.backup.snaprsv.rst

Deprecated

This is deprecated as success doesn't require any action failure can never happen.

Severity

NOTICE

Description

This message occurs when the snapshot reserve of the aggregate, which was temporarily increased by wafliron, is restored to its original value.

Corrective Action

If wafliron fails to return the volume's snapshot reserve to the original value, contact NetApp technical support.

Syslog Message

The reset of snapshot reserve value of %s by %d from %d was %s.

Parameters

vol (STRING): Volume name.
val (INT): Current value of the aggregate snapshot reserve, in percentage.
delta (INT): Change in the value of the aggregate snapshot reserve, in percentage.
result (STRING): Whether the attempt was successful.

wafl.iron.backup.success

Severity

INFORMATIONAL

Description

This message occurs when wafliron creates a SnapIron backup image.

Corrective Action

(None).

Syslog Message

Wafliron created SnapIron backup image %s on volume %s, ID %d.

Parameters

name (STRING): Backup image name.
vol (STRING): Volume name.
id (INT): Backup image ID.

wafl.iron.backup.useimage

Severity

INFORMATIONAL

Description

This message occurs when wafliron is using a SnapIron backup image to check the file system.

Corrective Action

(None).

Syslog Message

Wafliron is using SnapIron backup image of %s (ID %u).

Parameters

vol (STRING): Volume name.
id (INT): ID of SnapIron backup image.

wafl.iron.backup.verify.data

Severity
NOTICE

Description
This message occurs when wafliron creates a SnapIron backup image and you need to verify whether user data is stored in the aggregate or volume as soon as possible.

Corrective Action
Validate the user data stored in the aggregate or volume as soon as possible, before the SnapIron backup image is deleted. Contact NetApp technical support.

Syslog Message
Verify user data of %s.

Parameters
vol (STRING): Volume name.

wafl.iron.badfsid

Severity
ALERT

Description
This message occurs when a flexible volume has an invalid file system ID(FSID). Wafliron skips this volume.

Corrective Action
Contact NetApp technical support.

Syslog Message
Flexible volume %s%s%s on aggregate %s has an invalid FSID (%08x).

Parameters
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
aggrname (STRING): Aggregate name.
fsid (INT): File system identifier.

wafl.iron.completion.times

Severity
INFORMATIONAL

Description
This event provides the time taken to complete the different phases of Wafliron.

Corrective Action
(None).

Syslog Message

%s phase of %s %s took %s.

Parameters

p (STRING): Name of the iron phase.
ty (STRING): Type of the volume.
v (STRING): Name of the volume.
t (STRING): Time taken for the phase.

wafl.iron.cont.corrupt

Severity

ALERT

Description

This message occurs when a volume granular wafliron operation running on an aggregate finds corruption in the container file of a volume on which wafliron is not being run.

Corrective Action

Contact Contact NetApp technical support..

Syslog Message

Volume granular wafliron is in progress on aggregate %s. Corruption was found in volume %s container file with file id %d in which wafliron might have not run.

Parameters

aggr_name (STRING): Name of the aggregate on which wafliron is running.
vol_name (STRING): Name of the volume in which corruption was found in the container file.
container_file_id (INT): File id of container file of the volume in which corruption was found.

wafl.iron.current.phase

Severity

INFORMATIONAL

Description

This message specifies the phase name that wafliron is currently working on.

Corrective Action

(None).

Syslog Message

wafliron is active on %s %s : %s.

Parameters

ty (STRING): Type of the volume.
v (STRING): Name of the volume.
phase (STRING): Name of the current wafliron phase.

wafl.iron.dp.mirror.broken

Severity

ERROR

Description

This message occurs when a Data Protection mirrored volume is broken from its SnapMirror® relationship as a result of starting wafliron with the '-include-mirrors' option. When this happens, the Volume Location Database (VLDB), which is managed by the management host, must also be updated manually after wafliron finishes to avoid any discrepancy between the VLDB and Dblade.

Corrective Action

Run the 'debug vreport' command to resolve the inconsistency in the VLDB. Step 1) run 'debug vreport show' to show the object name. Step 2) run 'debug vreport fix -type volume -object object-name'.

Syslog Message

WaflIron broke the SnapMirror® relationship for volume '%s%s%s'. Use the 'debug vreport' command to resolve inconsistencies before reestablishing the SnapMirror relationship.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.iron.grow.fs.failed

Severity

ERROR

Description

This message occurs when WAFL® cannot grow a volume or aggregate because wafliron is running and the root volume does not have enough free space to grow the iron status files.

Corrective Action

Check the free space in the root volume. Abort wafliron or grow the root volume to accommodate the grown status files

Syslog Message

WAFL failed to grow %s %s due to a failure in growing wafliron status files in the root volume.

Parameters

voltype (STRING): Volume type: volume or aggregate.
volname (STRING): Name of the volume or aggregate.

wafl.iron.i2p.dir.convert

Severity

INFORMATIONAL

Description

This message occurs to inform you why wafliron is starting the inode-to-parent (i2p) initialization scan. The i2p scan updates the information in the volume necessary to perform i2p path name translations. The reason i2p information needs updating is that the volume contains converted directories, and the entries in the converted directories need their i2p information updated. This message does not indicate anything abnormal or problematic.

Corrective Action

(None).

Syslog Message

Found converted directories in %s %s%s%s%s that require their entry's inode-to-parent (i2p) information updated. Starting the i2p initialization scanner to update the entries in the converted directories. This is normal.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.iron.incompleteVol

Severity

ALERT

Description

This wafliron event indicates that a volume is partially created and might be in an inconsistent state. Wafliron is marking the volume as unrecoverable. For instance, if filer panics before snap restore completes when a clone volume is created it may leave the volume partially created.

Corrective Action

If the volume is known not to contain any valuable data, it can be safely destroyed and recreated.

Syslog Message

Flexible volume %s%s on aggregate %s is partially created. Marking it unrecoverable. You may destroy this volume and recreate it.

Parameters

volname (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
aggrname (STRING): Aggregate name

wafl.iron.invalid.vvol

Severity

ERROR

Description

This wafliron message indicates that a volume is invalid. Wafliron cannot run on invalid volumes. A volume can become invalid as a result of an aborted 'vol copy' operation or SnapMirror® initial transfer. To bring the volume back online, you must re-create it through a completed 'vol copy' operation or SnapMirror transfer.

Corrective Action

If you know that the volume does not contain any valuable data, you can safely destroy and re-created it.

Syslog Message

Flexible volume %s%s%s on aggregate %s is invalid. Wafliron cannot run on invalid volumes.

Parameters

volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
aggrname (STRING): Aggregate name.

wafl.iron.lost.blocks

Severity

INFORMATIONAL

Description

This message indicates that wafliron is running on a particular inode.

Corrective Action

(None).

Syslog Message

Wafliron on %s %s%s%s is verifying %lld %s inode now.

Parameters

voltype (STRING): Volume type.
volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
inode_number (LONGINT): Number of inode buftrees not verified.
ino_type (STRING): The inode type.

wafl.iron.manualUpgradeRequired

Severity

ERROR

Description

This event is issued when wafliron can't run on the volume because it's not upgraded yet. This happens when system was upgraded with an offlined or restricted volume (possibly due to corruption) and wafliron is started after the upgrade with the volume offlined or restricted.

Corrective Action

Manually online the volume and then restart wafliron. Or fix any corruption on an inconsistent volume and bring it online before a kernel upgrade.

Syslog Message

Wafliron cannot run on volume '%s' that is in an older format. Manually online the volume and retry wafliron.

Parameters

volname (STRING): Volume name.

wafl.iron.mount.inconsistency

Severity

ERROR

Description

This message occurs when wafliron finds some WAFL® inconsistency issues on an aggregate during mount.

Corrective Action

Run the 'storage aggregate wafliron review <aggregate-name>' command to review the issues that wafliron found. If you need assistance resolving any of the issues, contact NetApp technical support.

Syslog Message

wafliron on aggregate %s found some WAFL inconsistency issues during mount.

Parameters

aggrname (STRING): Aggregate name.

wafl.iron.mount.inconsistent

Severity

ALERT

Description

This wafliron message indicates that the FlexVol® volume cannot be mounted; the volume is marked as inconsistent.

Corrective Action

Re-run wafliron with the '-prev_cp' option set to restore the FlexVol volume to the closest Consistency Point(CP)/snapshot.

Syslog Message

wafliron could not mount volume %s due to %s. Volume is marked as inconsistent.

Parameters

vvolname (STRING): Volume name.
reason (STRING): Reason for the failure.

wafl.iron.mount.times

Severity

INFORMATIONAL

Description

This message prints the mount times taken by the different phases of aggregate mount during wafliron. This message occurs after wafliron completion or through a wafliron status message.

Corrective Action

(None).

Syslog Message

%s mount phase of %s %s took %s.

Parameters

phase (STRING): Name of the mount phase.
voltype (STRING): Type of the volume (aggergate/flexvol).
volname (STRING): Name of the volume or aggregate.
time (STRING): Time taken for the phase.

wafl.iron.mounted.volume

Severity

INFORMATIONAL

Description

This message is used to print on the console that the volume is mounted during wafliron.

Corrective Action

(None).

Syslog Message

Wafliron mounted volume %s.

Parameters

vol (STRING): Name of the volume.

wafl.iron.mw.ioc.not.supported

Severity

ERROR

Description

This event is issued when IOC is issued on metawafl aggregate.

Corrective Action

(Call support).

Syslog Message

Iron optional commit is not supported on metawafl aggregate '%s'. Please run wafliron.

Parameters

volname (STRING): Volume name.

wafl.iron.nvsave.disable.selection

Severity

INFORMATIONAL

Description

This message is used to print on the console that the wafliron cannot run in volume select mode on the aggr as the aggregate has nvsave file records.

Corrective Action

(None).

Syslog Message

The aggr %s has nvlog records in the system. Wafliron cannot run in volume selection mode. Volumes will be brought online in random order.

Parameters

aggr (STRING): Name of the aggregate.

wafl.iron.oc.abort.bad_blk

Severity

EMERGENCY

Description

This message occurs when the system aborts wafliron in optional commit mode on the volume due to a bad block in the change log and lost write context status files.

Corrective Action

Refer to the Recovery Decision Tree.

Syslog Message

Aborting wafliron in optional commit mode because a bad block was found in volume '%s'.

Parameters

volname (STRING): Volume name.

wafl.iron.oc.abort.clog_full

Severity

EMERGENCY

Description

This message occurs when the system aborts an optional commit wafliron operation on a volume because the change log file was full, due to extensive filesystem consistency changes.

Corrective Action

Contact NetApp technical support.

Syslog Message

Aborting wafliron in optional commit mode on aggregate '%s'. The change log is full.

Parameters
    volname (STRING): Volume name.

wafl.iron.oc.committedChangeLog

Severity
    NOTICE

Description
    This wafliron event indicates that optional commit change log files have been committed to disk.

Corrective Action
    This happens when the user explicitly commits the changes to disk.

Syslog Message
    Committed change log files for aggregate %s.

Parameters
    volname (STRING): Volume name

wafl.iron.oc.deletedChangeLog

Severity
    EMERGENCY

Description
    This wafliron event indicates that optional commit change log files have been deleted.

Corrective Action
    This happens when the change log files have been writted to disk, or have been rejected.

Syslog Message
    Deleted change log files for aggregate %s.

Parameters
    volname (STRING): Volume name

wafl.iron.oc.errorCommitLog

Severity
    EMERGENCY

Description
    This wafliron event indicates that optional commit change log files' commit process has encountered an error.

Corrective Action
    Corrective action may include offlining the aggregate and running wafliron in optional commit mode again.

Syslog Message

Error committing change log files for aggregate %s.

Parameters

aggrname (STRING): Aggregate name

wafl.iron.oc.noCorruption

Severity

NOTICE

Description

This wafliron event indicates that optional commit did not find any corruption in the aggregate that it is being run on.

Corrective Action

No corrective action is required for this notification event. Wafliron will automatically online the aggregate.

Syslog Message

Wafliron did not find any corruption on aggregate %s. The aggregate and its volumes will be offlined automatically.

Parameters

aggrname (STRING): Aggregate name

wafl.iron.oc.rejectChangeLog

Severity

NOTICE

Description

This wafliron event indicates that optional commit change log files have been rejected (not committed).

Corrective Action

No corrective action required for this notification event.

Syslog Message

Rejecting change log files for aggregate %s.

Parameters

aggrname (STRING): Aggregate name

wafl.iron.oc.root.committedChanges

Severity

NOTICE

Description

This wafliron event indicates that optional commit changes have been committed to disks of the root aggregate/tradvol.

Corrective Action

No corrective action required.

Syslog Message

Committed changes for %s '%s'. The system will reboot now.

Parameters

voltype (STRING): Volume type - aggregate or tradvol
volname (STRING): Volume name

wafl.iron.oc.root.lowMemory

Severity

EMERGENCY

Description

Wafliron Optional Commit on the Root has exhausted available memory and cannot continue. Options will be presented to the administrator to either abort the changes or write to disk.

Corrective Action

Changes will have to be committed to disk for wafliron to continue or will have to be rejected.

Syslog Message

Wafliron Optional Commit on '%s' has run out of available memory and cannot continue. Please either commit to continue Wafliron by writing changes to disk or reject the changes (which will reboot the system).

Parameters

volname (STRING): Volume name

wafl.iron.oc.root.noCorruption

Severity

NOTICE

Description

This wafliron message indicates that the optional commit operation does not find any corruption in the root aggregate that it is being run on.

Corrective Action

No corrective action is required.

Syslog Message

Wafliron did not find any corruption on aggregate %s. The system will reboot now.

Parameters

aggrname (STRING): Root aggregate name.

wafl.iron.oc.root.rejectedChanges

Severity

NOTICE

Description

This wafliron event indicates that optional commit changes have been rejected.

Corrective Action

No corrective action required.

Syslog Message

Rejected changes for %s '%s'. The system will reboot now.

Parameters

voltype (STRING): Volume type - aggregate or tradvol
volname (STRING): Volume name

wafl.iron.offline.destroying

Severity

INFORMATIONAL

Description

This message occurs when a volume is being destroyed and cannot be ironed/onlined.

Corrective Action

(None).

Syslog Message

Volume '%s%s%s' is being destroyed and was taken offline.

Parameters

volname (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.iron.optcommit.upgradeScan

Severity

ERROR

Description

This message occurs when wafliron optional commit is started in a volume that has an upgrade still in progress.

Corrective Action

Wait for the upgrade scanner to finish for this volume, then restart wafliron.

Syslog Message

Wafliron optional commit cannot run in volume '%s' that still has an upgrade in progress. Run the advanced CLI command 'wafl scan status' to check whether an upgrade is still in progress.

Parameters
volname (STRING): Volume name.

wafl.iron.outofspace

Severity
ERROR

Description
This message oocurs when an aggregate is out of space. Wafliron omits the volumes in this aggregate when managing the aggregate.

Corrective Action
Run the "storage transition commit start" command to commit the aggregate transition and delete the pinned snapshot.

Syslog Message
Volumes in the aggregate %s are kept offline since aggregate is out of space. Wafliron omits volumes in this aggregate.

Parameters
aggrname (STRING): Name of the aggregate.

wafl.iron.parallel.mount.notify

Severity
NOTICE

Description
This message indicates that wafliron parallel mount is proceeding for the flexible volumes in an aggregate. All sparse volumes are mounted in parallel first, followed by non-clone flexible volumes in parallel. Each clone is mounted following its parent volume.

Corrective Action
(None).

Syslog Message
Wafliron parallel mount enabled. Wafliron is mounting flexible volumes in parallel in the aggregate %s.

Parameters
aggr (STRING): Aggregate name

wafl.iron.parent.volume.selected

Severity
INFORMATIONAL

Description
This message occurs when the parent of a clone volume is added to the list of volumes wafliron will mount first because the clone volume is on the list.

Corrective Action

(None).

Syslog Message

Volume %s in aggregate %s was added to the list of volumes that wafliron will mount first because its clone volume %s is present in this list.

Parameters

parent_volume (STRING): Name of the parent volume.
aggr (STRING): Name of the aggregate.
clone_volume (STRING): Name of the clone volume.

wafl.iron.pending.delete.vvol

Severity

ERROR

Description

This wafliron event indicates that a volume is awaiting deletion and cannot be ironed/onlined. It's deletion also cannot be canceled while iron is running, so its retention time may need to be extended in order to keep the volume.

Corrective Action

If you do not want the volume to be deleted while iron is running, check the retention time and consider extending it.

Syslog Message

Flexible volume %s%s%s on aggregate %s is awaiting deletion. Wafliron cannot run on such volumes.

Parameters

volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
aggrname (STRING): Aggregate name.

wafl.iron.ral.exception

Severity

ERROR

Description

This message occurs when wafliron is loading an inode that has a remote entry, but the corresponding remote volume is not reachable.

Corrective Action

Inspect the status of the FlexGroup remote volume, which might be down due to network errors, cluster node failures, or corruption in one or more of its constituent aggregates. Also check the health and connectivity of all nodes that are hosting these aggregates.

Syslog Message

Wafliron could not load inode "%d" on volume "%s" because the remote volume is not accessible.

Parameters

> **inode** (INT): Inode that could not be loaded.
> **volume** (STRING): Volume being inspected by wafliron.

wafl.iron.ral.inode.loaded

Severity

> NOTICE

Description

> This message occurs when wafliron succeeds in loading an inode in a FlexGroup origin volume that was not reachable earlier.

Corrective Action

> NONE.

Syslog Message

> After several retries, wafliron has processed inode "%d" in volume "%s".

Parameters

> **inode** (INT): Inode loaded after retries.
> **volume** (STRING): Volume being inspected by wafliron.

wafl.iron.readonly

Severity

> NOTICE

Description

> This message occurs during wafliron volume initialization, indicating that read-only volumes might not be checked.

Corrective Action

> Use either the "-f" or the "-include-mirrors" option to run wafliron on SnapMirror® destination volumes. For more information or assistance, contact NetApp technical support.

Syslog Message

> %s%s%s: Readonly volumes require additional command options to be checked using wafliron

Parameters

> **owner** (STRING): Owner of the volume.
> **vol** (STRING): Name of the volume.
> **app** (STRING): Application UUID.
> **volident** (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.iron.readonlyQtrees

Severity

> NOTICE

Description

This message occurs during wafliron volume initialization, indicating that volumes with read-only qtrees might not be checked.

Corrective Action

Use either the "-f" or the "-include-mirrors" option to run wafliron on SnapMirror® destination volumes.

Syslog Message

%s%s%s: Volumes containing readonly qtrees require additional command options to be checked using wafliron

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.iron.rebuild.dir.volful

Severity

ERROR

Description

This message occurs while running wafliron, when there might not be enough free space on the volume to rebuild a damaged directory.

Corrective Action

Increase the size of the volume or free space on the aggregate that contains the volume.

Syslog Message

Volume %s might run out of space while wafliron is rebuilding the damaged directory %d. The required space is %d MB.

Parameters

vol (STRING): Name of the volume.
fileid (INT): Identifying number for the damaged directory.
spaceNeeded (INT): Amount of spaced needed, in megabytes.

wafl.iron.salvaged.rootdir

Severity

INFORMATIONAL

Description

This message occurs when wafliron detects a corrupted rootdir in an index-dir-enabled volume and re-creates it with all valid entries in the rootdir. The old corrupted rootdir has been converted into a regular file and linked to the /lost+found directory.

Corrective Action

Remove the file from the /lost+found directory.

Syslog Message

Rootdir of volume %s has been corrected and contains all valid names. The contents of the old rootdir have been copied to file i#%d.* in the /lost+found directory.

Parameters

volume (STRING): Name of the volume.
fileid (INT): File ID of the regular file that contains the old rootdir contents as is.

wafl.iron.scan.skipped

Severity

NOTICE

Description

This event occurs when non-specified or read only volumes are not processed during a wafliron run on their containing aggregate.

Corrective Action

(None).

Syslog Message

Aggregate %s, wafliron completed - Read only, offline, old version or non-specified volume(s) %s not checked.

Parameters

aggr (STRING): The aggr name
vvols (STRING): Flexible volumes not processed

wafl.iron.scan.stats

Severity

INFORMATIONAL

Description

This message prints the wafliron scan details about various data objects: for example, files, directories, blocks.

Corrective Action

(None).

Syslog Message

%llu %s done.

Parameters

count (LONGINT): Number of data objects scanned so far.
object (STRING): Name of the data object.

wafl.iron.scanning.status

Severity

INFORMATIONAL

Description

This message prints wafliron scanning status.

Corrective Action

(None).

Syslog Message

Scanning (%d%% done).

Parameters

percentage (INT): Scanning percentage.

wafl.iron.slow

Severity

ERROR

Description

This message occurs when a "wafliron start" or a "wafliron show" command is issued and the aggregate that hosts wafliron status files for the aggregate on which wafliron is running contains only one data disk.

Corrective Action

1.Use the "-status-files-vserver" and "-status-files-volume" parameters of the "aggr wafliron start" command to host status files on a non-root aggregate volume, that has an adequate number of data disks that can accommodate the extra workload. 2.Add more disks to the root aggregate using "aggr add" command.

Syslog Message

Aggregate %s: wafliron performance will be significantly impacted because aggregate %s contains only one data disk. Running wafliron with status files hosted on a non-root aggregate volume that has an adequate number of data disks, or adding more disks to the root aggregate is recommended.

Parameters

aggr_name (STRING): Name of the aggregate on which wafliron is running.
status_vol_aggr_name (STRING): Name of the aggregate containing the volume hosting the wafliron status files.

wafl.iron.start

Severity

INFORMATIONAL

Description

This message occurs when the system starts the wafliron process on a volume.

Corrective Action

(None).

Syslog Message

Starting wafliron on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
optcommit (STRING): Whether wafliron is running in optional-commit mode. If this mode is used, the decision to commit changes is made by the user after wafliron is complete.
prev_cp (STRING): Whether the prev_cp feature of wafliron is being used and, if so, which consistency point the user chose at the prompt.
backup (STRING): Whether the backup feature of wafliron is being used and, if so, what option {no|yes|force|use} is selected. Only applicable to aggregates.

wafl.iron.unrecoverable

Severity

ALERT

Description

This message occurs when a volume is unrecoverable and cannot be ironed or brought online.

Corrective Action

Contact NetApp technical support.

Syslog Message

Flexible volume %s%s on aggregate %s is unrecoverable.

Parameters

volname (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
aggrname (STRING): Aggregate name.

wafl.iron.upgradeRequired

Severity

NOTICE

Description

This message occurs during volume or aggregate initialization if wafliron is enabled and does not support the volume or aggregate file system version. The message indicates that a volume or aggregate upgrade is required and is being attempted without wafliron checking. A wafliron check of the volume or aggregate might be possible after a successful upgrade.

Corrective Action

(None).

%s '%s%s%s%s' has not been upgraded. Upgrade will proceed without wafliron. The WAFL version on the %s is '%d'; the current WAFL version is '%d'.

Parameters

Type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume or aggregate.
vol (STRING): Name of the volume or aggregate.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume or aggregate in cases where the volume or aggregate name itself is insufficient.
type (STRING): Type of object (volume or aggregate).
vol_wafl_version (INT): WAFL® version on the volume or aggregate.
current_wafl_version (INT): Current WAFL version.

wafl.iron.volumes.selected.not.exist

Severity

INFORMATIONAL

Description

This message is used to print on the console that the volumes selected for ironing on the aggregate do not exist in the aggregate.

Corrective Action

(None).

Syslog Message

Some of the volumes selected for ironing do not exist in the aggregate %s.

Parameters

aggr (STRING): Name of the aggregate.

wafl.latest events

wafl.latest.physical.snapid.info

Severity

INFORMATIONAL

Description

This message occurs when WAFL® detects an inconsistent physical snapshot ID for the latest snapshot on a volume or an aggregate.

Corrective Action

(None).

Syslog Message

Corrected the latest_snapid for %s %s from %d to %d.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **volume** (STRING): Volume or aggregate name.
> **invalid_latest_snapid** (INT): Invalid latest snapshot ID stored on disk.
> **corrected_latest_snapid** (INT): The corrected latest snapshot ID.

wafl.lmgr events

wafl.lmgr.meta.mv

Severity

> NOTICE

Description

> The appliance file lock state for a volume could not be moved during a file system check operation (wafliron).

Corrective Action

> (None).

Syslog Message

> Move of file lock manager state for volume fsid %08x (uuid %s) for file system check received error %s

Parameters

> **fsId** (INT): File system identifier of the volume.
> **uuid** (STRING): Uuid of the volume.
> **err** (STRING): Error message.

wafl.lmgr.meta.rm

Severity

> NOTICE

Description

> The appliance file lock state for a volume could not be removed.

Corrective Action

> (None).

Syslog Message

> Cannot remove lock manager host metafile %s in recycle bin: error %s

Parameters

> **path** (STRING): Metadata file path.
> **err** (STRING): Error message.

wafl.lookup events

wafl.lookup.smDirErr

Severity

ERROR

Description

This message occurs when the system encounters an unexpected deleted directory entry in a snapmirrored qtree. This message can occur when accessing a directory in a snapmirrored qtree.

Corrective Action

This condition is transient. Wait for any in-progress SnapMirror(tm) operations to finish and try the operation again.

Syslog Message

wafl_nfs_lookup: unexpected deleted directory entry in snapmirrored qtree %d: {x%x %d %d %d %d} <%.*s> in {x%x %d %d %d %d}.

Parameters

qtree (INT): Qtree identifier.
fh0 (INT): Directory file handle's flags.
fh1 (INT): Directory file handle's snapid.
fh2 (INT): Directory file handle's fileid.
fh3 (INT): Directory file handle's generation.
fh4 (INT): Directory file handle's FSID.
name (STRINGARRAY): Name of the directory.
dfh0 (INT): Requested file handle's flags.
dfh1 (INT): Requested file handle's snapid.
dfh2 (INT): Requested file handle's fileid.
dfh3 (INT): Requested file handle's generation.
dfh4 (INT): Requested file handle's FSID.

wafl.make events

wafl.make.container.dense.failed

Severity

NOTICE

Description

This message occurs when container cant be made dense

Corrective Action

(None).

Syslog Message

Container cannot be made dense for %s "%s" due to "%s".

Parameters

volume_identifier (STRING): Volume identifier.
volume (STRING): Volume name.
message (STRING): Reason for failure to make container dense

wafl.maxdirsize events

wafl.maxdirsize.boot.notice

Severity

NOTICE

Description

This message occurs for each volume that has a maximum directory size greater than the default during boot.

Corrective Action

Use the (privilege:advanced) option of the "volume modify -volume vol_name -maxdir-size new_value" command to set the volume's maximum directory size to the default maxdirsize. However, doing so could impact system performance. If you need to increase the maximum directory size, work with NetApp technical support. For ASA r2, contact NetApp technical support for assistance to resolve this internal error.

Syslog Message

%s%s%s%s: This volume's maxdirsize (%uKB) is higher than the default (%uKB). There might be a performance penalty when doing operations on large directories.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): UUID of the volume when the volume name alone is insufficient.
current_maxdirsize (INT): Default maximum directory size value.
default_maxdirsize (INT): Default maximum directory size value.

wafl.mcc events

wafl.mcc.config.notFound

Deprecated

Deprecated as of version 9.4 as this debug EMS not supported now.

Severity

ERROR

Description

This message occurs when WAFL® does not find the MetroCluster configuration information on this node.

Corrective Action

Run the 'metrocluster check' command to verify the MetroCluster configuration.

Syslog Message

(None).

Parameters

(None).

wafl.mcc.exceed.volcnt.limit

Severity

ERROR

Description

This message occurs when the MetroCluster® volume count limit for this node is reached. No additional volumes can be created on this node unless some existing volumes are moved or destroyed.

Corrective Action

Either destroy some existing volumes or perform a 'volume move' operation to move some existing volumes to a storage aggregate located on a different node to make room for the new ones. Alternatively, you can also create new volumes on a different node to avoid moving or deleting the existing volumes.

Syslog Message

MCC volume count limit of %d reached for this node.

Parameters

max_volcnt (INT): Volume count limit for this node.

wafl.mcc.nso.left.behind

Severity

ERROR

Description

This message occurs when the system aborts a negotiated switchover because an online left-behind aggregate was found on this node.

Corrective Action

Check whether there exists any online left-behind aggregates on this node from a previous switchover or takeover operation. If such an aggregate exists, then perform the corrective actions specified in the earlier EMS messages for the left-behind aggregate to return it to its original owner, and then retry the operation. You can use the "override-vetoes" option to proceed without performing the corrective action.

Syslog Message

One or more online left-behind aggregates exist. Negotiated switchover is canceled.

Parameters

(None).

wafl.mcc.nso.veto.cmode.vols

Severity

ERROR

Description

This message occurs when the system aborts negotiated switchover because a cluster volume was found on an aggregate with Controller Failover (CFO) HA policy.

Corrective Action

Retry the negotiated switchover operation after the volume is deleted or moved to an aggregate with SFO HA policy. The override-vetoes option may be used to proceed without deleting or moving the volume.

Syslog Message

%s %s%s%s%s has a CFO HA policy and contains one or more cluster volumes. Negotiated switchover canceled.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.mcc.sb.left.behind

Severity

ERROR

Description

This message occurs when WAFL® leaves behind an aggregate during MetroCluster(tm) switchback because this aggregate does not meet all the WAFL veto criteria for switchback.

Corrective Action

Correct the issue that caused the aggregate to be left behind, based on the specific reason identified in an earlier EMS message. After correcting the issue, run the 'metrocluster switchback' command to return the aggregate to its original owner.

Syslog Message

Aggregate %s was left behind during switchback.

Parameters

vol (STRING): Name of the aggregate that was left behind.

wafl.mcc.sb.nso.veto.create

Severity

ERROR

Description

This message occurs when the system aborts a switchback or negotiated switchover because a volume create operation is running.

Corrective Action

Retry the switchback or negotiated switchover operation after the volume create operation is complete.

Syslog Message

%s %s%s%s%s is being created. Switchback or negotiated switchover canceled.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.mcc.sb.nso.veto.fence

Severity

> ERROR

Description

> This message occurs when the system aborts a switchback or negotiated switchover operation because a volume has a fence set.

Corrective Action

> A volume in the aggregate is currently fenced for group operations. Retry the switchback or negotiated switchover operation after any group SnapRestore® or mirror transfers are complete. If the problem persists, contact technical support.

Syslog Message

> %s %s%s%s%s has a fence set. Switchback or negotiated switchover canceled.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.mcc.sb.nso.veto.iron

Severity

> NOTICE

Description

> This message occurs when the system aborts a switchback or negotiated switchover because wafliron is running.

Corrective Action

> Retry the switchback or negotiated switchover operation after wafliron is finished.

Syslog Message

> %s %s%s%s%s is running wafliron. Switchback or negotiated switchover canceled.

Parameters

> **type** (STRING): Type of object (volume or aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.mcc.sb.nso.veto.lock

Severity

ERROR

Description

This message occurs when WAFL® vetoes a switchback or negotiated switchover operation because the system cannot obtain an aggregate level lock.

Corrective Action

Retry the switchback or negotiated switchover operation after waiting for other operations on the aggregate to finish.

Syslog Message

Switchback or negotiated switchover vetoed because the system could not obtain a lock on aggregate %s.

Parameters

vol (STRING): Aggregate name.

wafl.mcc.sb.nso.veto.nvsave

Severity

ERROR

Description

This message occurs when WAFL® vetoes a switchback or negotiated switchover operation because there are NVSave files for an aggregate or a flexible volume that must be replayed before the aggregate or flexible volume can be switched back.

Corrective Action

Retry the switchback or negotiated switchover operation after replaying NVSave files (by bringing the aggregate or flexible volume online) or deleting them from the root volume.

Syslog Message

Switchback or negotiated switchover vetoed due to presence of NVSave files for '%s' (FSID %d, UUID %s).

Parameters

vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.
fsid (INT): File system identifier.
UUID (STRING): UUID of the Volume.

wafl.mcc.sb.nso.veto.revert

Severity

ERROR

Description

This message occurs when the system aborts a switchback or negotiated switchover because a volume revert operation is running.

Corrective Action

Retry the switchback or negotiated switchover operation after the volume revert operation is complete.

Syslog Message

%s %s%s%s%s is being reverted. Switchback or negotiated switchover canceled.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.mcc.so.replay.disabled

Severity

NOTICE

Description

This message occurs during MetroCluster(tm) switchover processing on a simulator. WAFL® replay is disabled on simulators.

Corrective Action

(None).

Syslog Message

MetroCluster switchover: WAFL replay disabled on simulators.

Parameters

(None).

wafl.mcc.so.start

Severity

INFORMATIONAL

Description

This message occurs when WAFL starts switchover operation.

Corrective Action

(None).

Syslog Message

WAFL starts switchover operation (force-nvfail-all=%s).

Parameters

force_nvfail_all (STRING): Switchover command option.

wafl.mcc.so.vols.mounted

Severity

INFORMATIONAL

Description

This message occurs when the volumes are mounted during switchover.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

wafl.mcc.subphase.times

Severity

INFORMATIONAL

Description

Issued upon completion of the WAFL portion of a MetroCluster operation with sub-phase timings in milliseconds.

Corrective Action

(None).

Syslog Message

(None).

Parameters

operation (STRING): Operation that was completed, such as switchover or switchback.
subPhaseTimes (STRING): Report of sub-phase times for the WAFL portion of the MetroCluster operation.

wafl.mcc.total.maxvvols

Severity

NOTICE

Description

This message occurs in a MetroCluster(tm) configuration when the system cannot configure a FlexVol® volume because the maximum number of volumes has been reached.

Corrective Action

Check whether there exists a left-behind aggregate on this node from a previous switchover or takeover operation. If such an aggregate exists, then perform the corrective actions specified in the earlier EMS messages for the left-behind aggregate to return it to its original owner. Otherwise, either destroy some existing volumes or perform a 'volume move' operation to move some existing volumes to a storage aggregate located on a different node to make room for the new ones.

Syslog Message

Cannot configure FlexVol volume '%s' (UUID %s) in aggregate '%s': There are too many FlexVol volumes on the system.

Parameters

vol (STRING): FlexVol volume name.
uuid (STRING): FlexVol volume unique ID.
aggregate (STRING): Aggregate name.

wafl.mcc.volLimit.exceeded

Deprecated

Deprecated as of version 9.2 as the additional volume count soft limit for MCC is removed. The regular MCC limit based on the setting of node-object-limit is still in place.

Severity

ERROR

Description

This message occurs when the total volume count exceeds the limit supported on this node.

Corrective Action

Bring the number of volumes below the supported limit on this node, either by performing a 'volume move' operation to move the extra volumes to a storage aggregate located on a different node, or by destroying some or all of the unused extra volumes on this node.

Syslog Message

There are more volumes (%d) than the maximum number of volumes (%d) supported on this node for host: %s.

Parameters

numVols (INT): Current number of volumes.
limit (INT): Maximum number of volumes supported.
host (STRING): Host on this node for which the volume limit has been exceeded.

wafl.mem events

wafl.mem.stomper

Severity

NOTICE

Description

This event indicates whether memory stomper code is running or not.

Corrective Action

(None).

Syslog Message

You are %s running in corruption detection diagnostic mode with degraded performance.

Parameters

onoff (STRING): The stomper code is on/off

wafl.memory events

wafl.memory.status

Severity

INFORMATIONAL

Description

This message occurs periodically to inform the administrator about the amount of WAFL memory that is currently available.

Corrective Action

(None).

Syslog Message

%dMB of memory is currently available for the WAFL file system.

Parameters

mem (INT): Available WAFL memory, in megabytes (MB).

wafl.memory.statusLowMemory

Severity

NOTICE

Description

This message occurs when WAFL is low on memory.

Corrective Action

(None).

Syslog Message

WAFL is running low on memory, with %dMB remaining.

Parameters

mem (INT): Available WAFL memory, in megabytes (MB).

wafl.memory.statusVeryLowMemory

Severity

ALERT

Description

This message occurs when WAFL is very low on memory.

Corrective Action

(None).

Syslog Message

WAFL is running very low on memory, with %dMB remaining.

Parameters

mem (INT): Available WAFL memory, in megabytes (MB).

wafl.metadata events

wafl.metadata.rsrv.decreased

Severity

NOTICE

Description

This message occurs when the space reserved for volume metadata is decreased when the value of "space-guarantee" for a FlexClone volume is changed from "volume" to "none". After the decrease in the metadata reserve, the freed up space is added to the space available in the aggregate.

Corrective Action

(None).

Syslog Message

Metadata reserve for volume "%s" has decreased.

Parameters

volume_name (STRING): Volume name.

wafl.metadata.rsrv.increased

Severity

NOTICE

Description

This message occurs when the space reserved for volume metadata is increased when the value of "space-guarantee" for a FlexClone volume is changed from "none" to "volume" or when a FlexClone volume is split from its parent volume. This metadata reserve is required to store volume metadata inside an aggregate.

Corrective Action

(None).

Syslog Message

Metadata reserve for volume "%s" has increased.

Parameters

volume_name (STRING): Volume name.

wafl.metafile events

wafl.metafile.reg.unknown

Severity

NOTICE

Description

This message occurs when a metafile to be created is not documented, has information about it missing, or has not been identified and associated with an entry from the wiki page: MetafileRegistration. METAFILE_UNKNOWN is used as a placeholder in these cases.

Corrective Action

If you are familiar with this metafile, its purpose, or others who have worked with this file, please contact dl-replication-developer.

Syslog Message

%s is declared as METAFILE_UNKNOWN. If you are familiar with this metafile, its purpose, or others who have worked with this file, please contact dl-replication-developer.

Parameters

path (STRING): Filepath of the metafile

wafl.metafile.reg.unused

Severity

NOTICE

Description

This message occurs when a metafile believed to be unused or obsolete is about to be created.

Corrective Action

The information in the wiki page: MetafileRegistration and metafiles.h needs to be corrected. Please contact dl-replication-developer.

Syslog Message

%s is declared as METAFILE_UNUSED. The information in the wiki page: MetafileRegistration and metafiles.h needs to be corrected. Please contact dl-replication-developer.

Parameters

path (STRING): Filepath of the metafile

wafl.mirror events

wafl.mirror.access.denied

Severity

ERROR

Description

This message occurs when the system rejects client access to a primordial volume. A primordial volume is a volume that has been configured as the destination of a SnapMirror® relationship but has not yet been initialized through that relationship.

Corrective Action

You can avoid this event by using the 'volume unmount' command to unmount the volume from the namespace, or by using the 'snapmirror initialize' command to initialize the SnapMirror relationship to the volume.

Syslog Message

Access to SnapMirror volume '%s' was denied because SnapMirror initialization was not complete (exported snapshot identifier '%d' is invalid).

Parameters

vol (STRING): Volume name.
snapid (INT): Exported snapshot identifier.

wafl.mirror.upgrade.fail

Severity

ERROR

Description

This message occurs when WAFL® unexpectedly encounters a Data ONTAP® 10.0.x mirrored volume during an upgrade. This mirrored volume should have been deleted or broken off from its mirroring relationship prior to the upgrade.

Corrective Action

Avoid this event by destroying all Data ONTAP 10.0.x mirrored volumes prior to the upgrade. This event resulted in the volume being marked offline, corrupt, and unrecoverable. Because the current version of Data ONTAP does not recognize this mirrored volume, the volume cannot be recovered by file system repair mechanisms such as wafliron and cannot be brought online.

Syslog Message

Data ONTAP 10.0.x mirror (type %d) cannot be upgraded by the current version of Data ONTAP. Mirrored volume '%s' was marked offline, corrupt, and unrecoverable. Read the upgrade notes for this release. Such mirrored volumes should be deleted or broken off from their mirroring relationships prior to the upgrade.

Parameters

type (INT): Mirror type in Data ONTAP 10.0.x.
vol (STRING): Volume name.

wafl.mount events

wafl.mount.fa.incons

Severity

ERROR

Description

This message occurs when the flexaggregate cannot be mounted; the flexaggregate is marked as inconsistent.

Corrective Action

Contact NetApp technical support.

Syslog Message

wafliron could not mount flexaggregate %s due to %s. Flexaggregate is marked as inconsistent.

Parameters

flexaggrname (STRING): Flexaggregate name.
reason (STRING): Reason for the failure.

wafl.mount.inconsistent

Severity

ERROR

Description

This message occurs when the FlexVol® volume cannot be mounted; the volume is marked as inconsistent.

Corrective Action

Unable to mount the volume. Run wafliron to diagnose the volume.

Syslog Message

WAFL: Unable to mount volume %s due to %s. Volume is marked as inconsistent.

Parameters

vvolname (STRING): Volume name.
reason (STRING): Reason for the inability to mount the volume.

wafl.mount.info

Severity

NOTICE

Description

mount message

Corrective Action

(None).

Syslog Message

%s

Parameters

msg (STRING): Message from wafl vol mount path which prints how many messages were sent to WAFL.

wafl.mount.transient.error

Severity

ERROR

Description

This message occurs when a FlexVol® volume cannot be mounted due to transient errors and the volume is taken offline.

Corrective Action

Firstly, attempt to bring the volume online manually by using the "volume online" command. If the issue persists, determine whether the volume is a NetApp® Aggregate Encryption (NAE) volume by using the "volume show -encryption-type aggregate" command. If so, remount the aggregate of the volume by taking it offline (using the "aggr offline" command), and then bringing it online again (using the "aggr online" command). If the issue still persists, contact NetApp technical support. For ASA r2, contact NetApp technical support for assistance to resolve this internal error.

Syslog Message

WAFL: Unable to mount volume %s, UUID %s due to %s. Volume is taken offline due to transient errors.

Parameters

vvolname (STRING): Volume name.
uuid (STRING): Universal unique identifier (UUID) of the volume.
reason (STRING): Reason for the failure to mount the volume.

wafl.mp events

wafl.mp.vldb.update.failed

Severity

ERROR

Description

This message occurs when the value of the "multipart enabled" setting in the RAID label changes during the restoration of a snapshot, and an attempt to update the value in the Volume Location Database (VLDB) to match the new RAID label value fails.

Corrective Action

Perform the following steps using the 'debug vreport' command to resolve the inconsistency in the VLDB. 1. Run the "debug vreport show" command to show the object name. 2. Run the "debug vreport fix -type volume -object object-name" command.

Syslog Message

Updating the VLDB "granular-data" property of volume "%s" with DSID "%08x" to "%s" failed. Reason: %s.

Parameters

vol (STRING): Name of the volume.
dsid (LONGINT): Unique identifier (DSID) of the volume.
value (STRING): New value to be set.
errmsg (STRING): Error message.

wafl.needs events

wafl.needs.blog

Severity
ERROR

Description
This message occurs when batched_free_log needs to be turned on to allow performing one of the requested actions, such as "Dense Undo", "Dense Revert", and "Clone Split".

Corrective Action
Contact NetApp technical support..

Syslog Message
batched_free_log needs to be turned on.

Parameters
(None).

wafl.nfsv4 events

wafl.nfsv4.acl.not.mapped

Severity
ERROR

Description
This message occurs when the system cannot map an ID stored in the Access Control Entry (ACE) to a valid UNIX® User ID/Group ID (UID/GID) pair. This failure makes this ACE an invalid one, resulting in a possible loss of access to the file or directory for which this ACE was set.

Corrective Action
Contact NetApp technical support.

Syslog Message
ID in NFS Access Control Entry (ACE) on inode number %x, file system ID %x could not be mapped to a user or group. Possible loss of access can result.

Parameters
inum (INT): Inode number.
fsid (INT): File system ID.

wafl.no events

wafl.no.large.vvol.size.set

Severity
ERROR

Description
This message occur when a volume don't have 'large_size_enabled' flag set even when the nominal size

crosses the 100TB limit.

Corrective Action

(None).

Syslog Message

Nominal size of the "%s" volume exceeded either 100TB limit.

Parameters

vvolname (STRING): Name of the volume.

wafl.ntfsunixsecurityops events

wafl.ntfsUnixSecurityOps

Severity

NOTICE

Description

This message occurs when a UNIX-type permissions or ownership change is attempted by an NFS client on an NTFS (Windows) volume, but changes of this type are prohibited by an export policy rule.

Corrective Action

Use the "vserver show -fields uuid" command to find the Vserver name corresponding to the Vserver's UUID. Use the "volume file show-inode" command with the file ID and volume name information to find the file or directory path and consider using Windows client to set file or directory attributes.

Syslog Message

NFS client attempted prohibited change of UNIX permissions for file ID: %d, on NTFS volume : %s%s%s

Parameters

fileid (INT): File ID of the entry in the directory.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Vserver's Universal Unique Identifier (UUID).

wafl.nvlog events

wafl.nvlog.stats.createError

Severity

NOTICE

Description

This event is issued to indicate that the system is unable to create nvlog stats file.

Corrective Action

(None).

Syslog Message

Can't create nvlog replay stats file

Parameters

(None).

wafl.nvlog.stats.writeError

Severity

NOTICE

Description

This event is issued to indicate the system is unable to write to nvlog stats file.

Corrective Action

(None).

Syslog Message

Nvlog replay stats fio_write failed

Parameters

(None).

wafl.nvlog.versionFail

Severity

ALERT

Description

This message occurs when the nvlog version found in the NV log is not recognized by the current version of Data ONTAP®.

Corrective Action

This might be the result of an upgrade or revert attempt after a dirty boot. If so, try the upgrade or revert after a clean shutdown. If the problem persists, or if this was not due to an upgrade or revert, contact NetApp technical support.

Syslog Message

Could not replay WAFL NV log: nvlog format is of a prior or future release (%d, %d).

Parameters

version (INT): WAFL® NV log version in the NV log.
myversion (INT): Kernel WAFL NV log version.

wafl.nvsave events

wafl.nvsave.deletion.status

Severity

INFORMATIONAL

Description

This message occurs when one or more NVSave files are deleted from the local root volume or the partner root volume while in takeover mode, or from the partner node when the partner node is not in takeover mode.

Corrective Action

(None).

Syslog Message

Deleted NVSave files corresponding to %s %s with FSID %d, HA policy %d, CP_count %d %s on %s node. UUID is %s.

Parameters

vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.
vol_name (STRING): Volume name.
fsid (INT): File system identifier.
ha_policy (INT): High-availability (HA) policy of the parent aggregate.
CP_count (INT): Volume's WAFL® consistency point (CP) count.
status (STRING): Whether deletion failed or succeeded.
node (STRING): Whether deletion was attempted on a local or partner node.
UUID (STRING): UUID of Volume.

wafl.nvsave.overwritingstale

Severity

NOTICE

Description

This message occurs during replay of the WAFL® nvlog, when the system discovers records associated with an offline volume. These records need to be stored in a system file on the root volume for future replay. However, a previously saved replay file already exists for this volume in the root volume. The system overwrites the stale replay file if the Consistency Point (CP) count stored in the file is less than that in nvlog.

Corrective Action

(None).

Syslog Message

Detected stale system nvlog replay file for a nonexistent volume with FSID '%d' in the '%s' root volume for WAFL nvlog %d. This stale file was overwritten because of '%s'.

Parameters

fsid (INT): File system ID (FSID) of the missing volume.
host (STRING): Owner of the root volume to which the detected nvlog records are successfully stored.
log (INT): WAFL NV log section in which nvlog records for the volume are located.
error (STRING): Reason for overwriting the existing nvsave file.

wafl.nvsave.replaying

Severity

NOTICE

Description

This message occurs when a volume comes online and detects relevant nvlog data to be replayed from the system file in the root volume.

Corrective Action

(None).

Syslog Message

Relevant nvlog data detected for volume %s%s%s%s, FSID %d, CP count %d in WAFL NV log %d. Replaying nvlog records for the volume from a system file in the root volume.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Consistency Point (CP) count found in the system nvlog file.
log (INT): WAFL nvlog section in which nvlog records for the volume are located.
vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.nvsave.replaying.fail

Severity

EMERGENCY

Description

This message occurs when a volume comes online and fails to replay relevant nvlog data from the system file in the root volume. The nvlog data for the volume might be lost.

Corrective Action

Take appropriate recovery action to recover from data loss, if any.

Syslog Message

Relevant nvlog data detected for volume %s%s%s%s, FSID %d, CP count %d. Failed to replay nvlog records in WAFL nvlog %d for the volume from a system file in the root volume due to error: %s.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Consistency Point (CP) count found in the system nvlog file that could not be replayed.
log (INT): WAFL® nvlog section in which nvlog records for the volume are located.
error (STRING): Reason for the failure.
log0_replay_time (LONGINT): Milliseconds to replay nvlog records from the first NVSave file.
log0_cp_time (LONGINT): Milliseconds to complete the WAFL CP after nvlog records from the first NVSave file are replayed.
log1_replay_time (LONGINT): Milliseconds to replay nvlog records from the second NVSave file.
log1_cp_time (LONGINT): Milliseconds to complete the WAFL CP after nvlog records from the second NVSave file are replayed.

vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.nvsave.replaying.partial

Severity

NOTICE

Description

This message occurs when a volume comes online and does a partial replay of the nvlog data from the system file in the root volume. The reason for the partial replay is listed.

Corrective Action

(None).

Syslog Message

%s. Nvlog records from the system file in the root volume for volume with FSID %d might have been partially replayed.

Parameters

reason (STRING): Reason for the partial replay.
fsid (INT): File system ID (FSID) of the volume.

wafl.nvsave.replaying.pass

Severity

NOTICE

Description

This message occurs when a volume comes online and successfully replays relevant nvlog data from the system file in the root volume.

Corrective Action

(None).

Syslog Message

Relevant nvlog data detected for volume %s%s%s%s, FSID %d, CP count %d. Successfully replayed nvlog records for the volume from a system file in the root volume.

Parameters

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Consistency Point (CP) count found in the system nvlog file.
log0_replay_time (LONGINT): Milliseconds to replay nvlog records from the first NVSave file.
log0_cp_time (LONGINT): Milliseconds to complete WAFL® CP after nvlog records from the first NVSave file are replayed.
log1_replay_time (LONGINT): Milliseconds to replay nvlog records from the second NVSave file.
log1_cp_time (LONGINT): Milliseconds to complete the WAFL CP after nvlog records from the second NVSave file are replayed.
vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.nvsave.saving

Severity

NOTICE

Description

This message occurs during replay of the WAFL® nvlog, when records associated with a nonexistent or currently offline volume are discovered. These records will be stored in a system file on the root volume and will be replayed when the offline volume comes online.

Corrective Action

(None).

Syslog Message

Replay detected nvlog records for a nonexistent or offline volume with FSID %d and CP count %d in WAFL nvlog %d. The nvlog records will be stored in a system file in the "%s" root volume for possible future replay.

Parameters

fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Volume's WAFL Consistency Point (CP) count found in the nvlog.
log (INT): WAFL nvlog section in which nvlog records for the volume are located.
host (STRING): Owner of the root volume on which the detected nvlog records are stored.
vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.nvsave.saving.fail

Severity

EMERGENCY

Description

This message occurs when, during replay of the WAFL® nvlog, records associated with a non-existent or offline volume are discovered, but not successfully saved to a system file on the root volume. Data loss is possible when the volume comes back online.

Corrective Action

Nvlog records for an offline volume were not successfully saved, data loss is possible when the volume comes back online. Take appropriate recovery action to recover from data loss, if any, when the volume comes back online.

Syslog Message

Replay detected nvlog records for a nonexistent volume with FSID %d and CP count %d in WAFL nvlog %d. Failed to store nvlog records in a system file in the "%s" root volume due to error: %s.

Parameters

fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Volume's WAFL Consistency Point (CP) count found in the nvlog.
log (INT): WAFL nvlog section in which nvlog records for the volume are located.
host (STRING): Owner of the root volume on which the detected nvlog records were intended to be stored.
error (STRING): Error code.
vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.nvsave.saving.pass

Severity

NOTICE

Description

This message occurs when, during replay of the WAFL® nvlog, records associated with a currently offline volume are discovered and successfully stored in a system file on the root volume. These records are replayed when the volume comes back online.

Corrective Action

The nvlog records for an offline volume are successfully saved on the root volume. These records are replayed when the volume comes back online.

Syslog Message

Replay detected nvlog records for an offline volume with FSID %d and CP count %d in WAFL nvlog %d. The nvlog records were successfully stored in a system file on the "%s" root volume in %llu milliseconds.

Parameters

fsid (INT): File system ID (FSID) of the missing volume.
cp_count (INT): Volume's WAFL Consistency Point (CP) count found in the system nvlog file.
log (INT): WAFL NV log section in which nvlog records for the volume are located.
host (STRING): Owner of the root volume on which the detected nvlog records are successfully stored.
timetaken (LONGINT): Time taken to save the nvlog records, in milliseconds.
vol_type (STRING): Whether this message refers to NVSave files for an aggregate or a flexible volume.

wafl.objstore events

wafl.objstore.ownership.conflict

Severity

ALERT

Description

This message occurs when FabricPool aggregate and SnapMirror® tries to share the same underlying objectstore connection pools in a platform where the sharing is not supported.

Corrective Action

For more information or assistance, contact NetApp technical support.

Syslog Message

FabricPool aggregate and SnapMirror® cannot share the underlying objectstore connection pool. Objectstore Config id: %u, current owner: %u.

Parameters

primary_config_id (INT): Primary object store config id.
current_owner (INT): Existing owner. FabricPool(1)/SnapMirror(2).

wafl.offline events

wafl.offline.infoError

Severity
ALERT

Description
This message occurs when the system attempts to place a volume online, but cannot read the volinfo or fsinfo data for the volume.

Corrective Action
Volume is inconsistent. Contact NetApp technical support.

Syslog Message
Either both volinfo blocks or fsinfo block on %s %s%s%s%s are/is invalid.

Parameters
type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume, for cases when the volume name is insufficient.

wafl.offline.openfiles

Severity
NOTICE

Description
This message occurs when wafliron detects a failure while trying to perform an operation because files are open.

Corrective Action
No corrective action is required for this notification event.

Syslog Message
'%s %s' might not be '%s%s' because of '%u' open file'%s'.

Parameters
voltype (STRING): Aggregate.
volname (STRING): Volume name.
operation (STRING): Operation.
suffix (STRING): Suffix.
uses (INT): Number of open files.
plural (STRING): Plural.

wafl.offline.proc.file

Severity

NOTICE

Description

This message occurs when wafliron detects a failure while trying to perform an operation because a process has open files.

Corrective Action

No corrective action is required for this notification event.

Syslog Message

The '%s' process has '%u' file'%s' open.

Parameters

procname (STRING): Process name.
openfiles (INT): Number of open files.
plural (STRING): Plural.

wafl.offline.proc.file.unres

Severity

NOTICE

Description

This message occurs when wafliron detects a failure while trying to perform an operation because a process has unresolved open files.

Corrective Action

No corrective action is required for this notification event.

Syslog Message

Could not resolve '%u' of '%s's' open file names.

Parameters

openfiles (INT): Number of open files.
procname (STRING): Process name.

wafl.offline.quiesce.aborted

Severity

NOTICE

Description

This message occurs when wafliron detects a failure while waiting for a volume reference lock to be taken.

Corrective Action

No corrective action is required for this notification event.

Syslog Message

The wait for uses of '%s %s' to quiesce was aborted.

Parameters

voltype (STRING): Aggregate.
aggrname (STRING): Aggregate name.

wafl.offline.quiesced

Severity

NOTICE

Description

This message occurs when wafliron detects a success while waiting for a volume reference lock to be taken.

Corrective Action

No corrective action is required for this notification event.

Syslog Message

Uses of '%s %s' preventing '%s' have quiesced.

Parameters

voltype (STRING): Aggregate.
aggrname (STRING): Aggregate name.
operation (STRING): Operation.

wafl.offline.versionMismatch

Severity

EMERGENCY

Description

This message occurs when the system is inspecting an offline volume by reading the super block and discovers that there is a version mismatch.

Corrective Action

Confirm that the correct Data ONTAP® version is in use; if not, reboot or upgrade to the correct version as necessary. For more information or assistance, contact NetApp technical support.

Syslog Message

This version of Data ONTAP does not recognize the filesystem of offline %s %s%s%s%s. The volume is probably from a later version of the software.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.

wafl.offline.volref.msg

Severity

NOTICE

Description

This message indicates the volume reference message that prevents the operation on an aggregate.

Corrective Action

No corrective action is required for this notification event.

Syslog Message

'%s' prevents '%s' of '%s %s'.

Parameters

volreftext (STRING): Volume reference message text.
operation (STRING): Operation.
voltype (STRING): Aggregate.
aggrname (STRING): Aggregate name.

wafl.ondemand events

wafl.ondemand.aggr.rsv.fail

Severity

ERROR

Description

This message occurs when Data ONTAP® fails to reserve space for a file operation due to lack of space on the aggregate.

Corrective Action

Create free space on the aggregate by either adding more disks or manually deleting data. If this condition persists, contact NetApp technical support for further assistance.

Syslog Message

Insufficient space on aggregate '%s %s' to perform file operation on volume '%s%s%s' (failed to re-create %s flexible space pool).

Parameters

owner (STRING): Owner of the aggregate.
aggr (STRING): Name of the aggregate.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
fsptype (STRING): Type of the flexible space pool.

wafl.ondemand.destroy.pending

Severity

NOTICE

Description

This message occurs when a file operation cannot be immediately destroyed because the destination file has been captured in one or more snapshots.

Corrective Action

Delete the snapshots that have captured the destination file.

Syslog Message

%s

Parameters

destroy_info (STRING): Status of the file operation.

wafl.ondemand.done

Severity

NOTICE

Description

This message occurs when a file operation is completed.

Corrective Action

(None).

Syslog Message

%s

Parameters

done_info (STRING): Status of the completed file operation.

wafl.ondemand.dst.fsize.exceeded

Severity

NOTICE

Description

This message occurs when the size of a file or LUN being moved or copied exceeds the maximum file or LUN size allowed by the system. The ondemand operation will fail for that particular file or LUN.

Corrective Action

(None).

Syslog Message

%s destination job %s-%d. %s %s%s%s%s, FSID 0x%x, The file operation with file ID %d has failed because the file size exceeded the maximum file size allowed on the current system, which is %lu bytes. The size of the file being copied or moved is %lu bytes.

Parameters

job_type (STRING): Operation type.
job_uuid (STRING): Unique ID (UUID) of the file operation source job.
file_index (INT): Unique identifier for the file in the source job.

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume if the volume name itself is insufficient.
fsid (INT): File system identifier of the volume.
fileid (INT): File identifier.
maxsize (LONGINT): Maximum file size allowed on this system.
filesize (LONGINT): Size of the file being copied or moved.

wafl.ondemand.dstPresent

Severity
INFORMATIONAL

Description
This message occurs when a file shows up in the public name space of destination volume during file operation.

Corrective Action
(None).

Syslog Message
%s

Parameters
file_info (STRING): Destination file's UUID and index.

wafl.ondemand.errPaused

Severity
ALERT

Description
This message occurs when a file or LUN operation is paused due to an error condition.

Corrective Action
Based on the information in the event, resolve the problem that is causing the error condition, if possible. The operation is retried automatically on an hourly interval, or you can unpause the operation by using the appropriate command: file copy modify, file move modify, lun copy resume, or lun move resume. If the error condition persists, contact NetApp technical support.

Syslog Message
%s

Parameters
error_info (STRING): Error information for the paused operation.

wafl.ondemand.jobLookupFailed

Severity

ERROR

Description

This message occurs when an ondemand msg returns an error and, upon trying to check if snapshots are fenced during the cleanup process, cannot find the associated job.

Corrective Action

Check if snapshots can be taken on the volume. If not, try to abort the previous job using either 'file copy destroy' or 'file move destroy'. If neither suggestions are successful, contact technical support for assistance.

Syslog Message

OnDemand lookup job failed: %s

Parameters

job_lookup_info (STRING): Information regarding the OnDemand msg.

wafl.ondemand.metafileErr

Severity

ERROR

Description

This message occurs when the special-purpose metafile that Data ONTAP® creates to store information on file operations cannot be read. The volume has been left offline as a consequence.

Corrective Action

Issue the 'volume online' command to attempt to bring the affected volume back online. If this condition persists, contact NetApp technical support for futher assistance.

Syslog Message

OnDemand metafile load error, volume '%s%s%s': %s

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
error_info (STRING): Error infomation.

wafl.ondemand.repaired.metafile

Severity

ERROR

Description

This message occurs when an inconsistency is discovered in the OnDemand metafile header or entry. The inconsistency is automatically repaired upon detection.

Corrective Action

(None).

Syslog Message

%s certification failed: %s, %s, %s, %s, %s, fbn (%llu), record_index (%llu)

Parameters

fh (STRING): File handle of ondemand metafile which is repaired.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.
condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
fbn (LONGINT): File block number (fbn) of the repaired block.
record_index (LONGINT): Index of the record entry in the repaired block.

wafl.ondemand.space.rsv.fail

Severity

ERROR

Description

This message occurs when Data ONTAP® fails to reserve space for a file operation due to lack of space on the volume.

Corrective Action

Manually delete data to create free space on the volume, and then modify the job to unpause the data scanner by using the "volume file [copy|move] modify -job-uuid <job_uuid> -file-index <file_index> -scanner -paused false" command. If this condition persists, contact NetApp technical support for further assistance.

Syslog Message

Insufficient space on '%s%s%s' to perform file operation %s-%d (failed to re-create %s flexible space pool).

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
job_uuid (STRING): Unique ID (UUID) of the file operation.
file_index (INT): Unique identifier for the file in the job.
fsptype (STRING): Type of the flexible space pool.

wafl.ondemand.srcJobRecFail

Severity

ERROR

Description

This message occurs when the system fails to repair a corrupted record in the special-purpose metafile that holds information about file operations.

Corrective Action

The source job recovery will be reattempted the next time the volume comes online. To explicitly reattempt the recovery, take the source volume offline and then bring it back online. If this error condition persists, contact NetApp technical support.

Syslog Message

Volume %s%s%s: %s

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
result (STRING): Result of the failed recovery.

wafl.ondemand.srcJobRecovery

Severity

NOTICE

Description

This message occurs when the system repairs a corrupted record in the special-purpose metafile that holds information about file operations. If the file operation associated with the recovered source job is still in progress, the file operation can be resumed. Otherwise, the original source file can be recovered to lost+found by using the "file source recover" command.

Corrective Action

(None).

Syslog Message

Recovered file operation source job %s-%d in volume "%s%s%s".

Parameters

job_uuid (STRING): Unique ID (UUID) of the file operation source job.
file_index (INT): Unique identifier for the file in the source job.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.ondemand.srcRecovered

Severity

INFORMATIONAL

Description

This message occurs when a file operation source recovery is completed.

Corrective Action

(None).

Syslog Message

Recovered %s source job %s-%d to {DSID:%d:%s}.

Parameters

type (STRING): Operation type.
job_uuid (STRING): Unique ID (UUID) of the file operation source job.
file_index (INT): Unique identifier for the file in the source job.

dsid (INT): Data set identifier (DSID) of the volume where the recovery was performed.
path (STRING): Path to the recovered object.

wafl.ondemand.started

Severity

NOTICE

Description

This message occurs when an OnDemand file or LUN operation is started. The "operation_info" parameter contains information on the type and identity of the started operation.

Corrective Action

(None).

Syslog Message

OnDemand operation started: %s

Parameters

operation_info (STRING): Initial status of the OnDemand operation.

wafl.ondemand.volBusy

Severity

ERROR

Description

This message occurs when a volume operation fails because the volume is the source or destination of one or more file operations. Continuing with the volume operation could potentially disrupt file operations.

Corrective Action

Make sure that file operations are making progress, and if they are paused unpause them. Retry the volume operation after the completion of the file operations.

Syslog Message

Volume %s%s%s can not be offlined, until all pending file operations are completed.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.online events

wafl.online.admin.vol

Severity

INFORMATIONAL

Description

This message occurs when a cluster admin volume comes online during MetroCluster™ switchover.

Corrective Action

None.

Syslog Message

Cluster admin volume %s DSID (%08x) in aggregate %s is online.

Parameters

vol (STRING): Name of the volume.
dsid (LONGINT): Unique identifier (DSID) of the volume.
aggr (STRING): Name of the containing aggregate.

wafl.online.fail.vmalign

Severity

EMERGENCY

Description

This message occurs when a virtual volume cannot be brought online because it has the 'vm-align' option set, which is not supported in this release of Data ONTAP®.

Corrective Action

Install a version of Data ONTAP that supports the 'vm-align' option, available from your vendor.

Syslog Message

Volume '%s%s%s%s' is being taken offline because it has the 'vm-align' option set, which is not supported in this version of Data ONTAP.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.online.infoError

Severity

ALERT

Description

This message occurs when there is a problem reading the volinfo or fsinfo data while trying to mount an online volume.

Corrective Action

(Call support).

Syslog Message

Neither volinfo block of %s %s%s%s%s is valid OR the fsinfo block is invalid.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.

wafl.online.mode.corrupted

Severity

ALERT

Description

This event is issued when there is an inconsistency in the mode bits that indicate whether this volume is in a clustered or nonclustered environment.

Corrective Action

Run wafliron on the containing aggregate to fix up the mode bits.

Syslog Message

The mode bits that indicate whether the %s '%s' volume is in a clustered or nonclustered environment are inconsistent.

Parameters

type (STRING): Type of object (flexible volume).
vol (STRING): Name of the flexible volume.

wafl.online.notCompatibleVer

Severity

EMERGENCY

Description

This message occurs when a volume or aggregate cannot be brought online because SnapLock® is not supported on this version of Data ONTAP®.

Corrective Action

Install a version of Data ONTAP that is supported with SnapLock, available from your vendor.

Syslog Message

%s %s%s%s%s is being taken offline. SnapLock is not supported on this version of Data ONTAP.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.online.toomany

Severity

ALERT

Description

This message occurs when an attempt to bring a volume online fails because the maximum number of volumes are already online for this node.

Corrective Action

Take a currently mounted volume on this node offline so that you can bring the new volume online.

Syslog Message

%s %s%s cannot be brought online because the maximum online count has been reached.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.

wafl.online.unknownVersion

Severity

ALERT

Description

This message occurs when mounting an online volume reveals that the volume version is not recognized by the current version of Data ONTAP®.

Corrective Action

Confirm that the correct Data ONTAP version is in use; if not, reboot or upgrade to the correct version as necessary. For more information or assistance, contact NetApp technical support.

Syslog Message

This version of Data ONTAP does not recognize the filesystem of %s %s%s%s%s. The volume is being taken offline.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.

wafl.online.unsup.deployment

Severity

ALERT

Description

This message occurs when the system determines that the deployment in which this aggregate was created does not match the current (clustered or nonclustered) deployment of Data ONTAP®.

Corrective Action

Bring the aggregate online on a node that matches the clustered or nonclustered deployment in which it was created.

Syslog Message

This deployment of Data ONTAP does not support the file system of '%s %s'. It is being taken offline.

Parameters

type (STRING): Type of object (aggregate).
vol (STRING): Name of the aggregate.

wafl.online.vbnMismatch

Severity

EMERGENCY

Description

This message occurs when there is an error in the block number data associated with a volume, for example, if WAFL®and RAID have different values for the size of the volume.

Corrective Action

Run wafliron on the volume. For more information or assistance, contact NetApp technical support.

Syslog Message

There is a block number error in either the fsinfo block or disk labels on %s %s%s%s%s. The volume is being taken offline.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.

wafl.onoff events

wafl.onOff.mirType.inv

Severity

ERROR

Description

This message occurs when WAFL® attempts to bring online or take offline a mirror volume that does not have a valid mirror-type attribute.This situation might be a direct result of an upgrade to a version of Data ONTAP® that requires the mirror-type attribute or as a result of a corruption.

Corrective Action

This condition cannot be fixed by file system repair mechanisms such as wafliron. The data is not lost, but it is inaccessible to the administrator. To access the data, contact NetApp technical support. Alternatively, the administrator can destroy the mirror volume by using the 'volume delete -vserver vserver_name -volume vol_name' command.

Syslog Message

The mirror type associated with the mirror volume %s %s%s%s%s is invalid.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name by itself is insufficient.

wafl.playlist events

wafl.playlist.bad_fh

Severity

INFORMATIONAL

Description

This event indicates bad playlist file handle

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr_name (STRING): Aggregate name
vol_name (STRING): Volume name

wafl.playlist.create.failure

Severity

INFORMATIONAL

Description

This event indicates that playlist creation failed.

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr_name (STRING): Aggregate name
vol_name (STRING): Volume name

wafl.playlist.no_playlist

Severity

INFORMATIONAL

Description

This event indicates no playlist was found for a volume

Corrective Action

(None).

Syslog Message

(None).

Parameters

aggr_name (STRING): Aggregate name
vol_name (STRING): Volume name

wafl.pnso events

wafl.pnso.offload.engine.error

Severity

ALERT

Description

This message occurs when hardware offload engine requests failed with EIO error.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s [%d]

Parameters

msg (STRING): Error message to be displayed.
err (INT): Error code received.

wafl.pvbn events

wafl.pvbn.check.done

Severity

INFORMATIONAL

Description

This event is issued to inform the user that the pvbn check has completed. It lists detailed information on what work was performed.

Corrective Action

This message may be disabled by passing -s to wafl scan pvbn_check when starting the scanner.

Syslog Message

PVBN check has completed on %s, snapid %d. inos: %d, pvbns: %llu, unks: %llu, errs: %llu.

Parameters

vol (STRING): The volume name
snapid (INT): ID of the snapshot that has been completely scanned
inos (INT): How many inodes were checked
pvbns (LONGINT): How many block pointers were checked
unks (LONGINT): How many pvbn unknowns were encountered
errs (LONGINT): How many pvbn mismatches were encountered

wafl.pvbn.check.found.mismatch

Severity

EMERGENCY

Description

This event is issued to inform the user that the pvbn check has found a pvbn mismatch.

Corrective Action

This message may be disabled by passing -s to wafl scan pvbn_check when starting the scanner.

Syslog Message

PVBN check has found a pvbn mismatch on %s, snapid=%d, %s ino=%d, level=%d, fbn=%llu, index=%d, pvbn=%llu, pvbn2=%llu.

Parameters

vol (STRING): The volume name
snapid (INT): ID of the snapshot being scanned
ino_type (STRING): The inode type
inum (INT): Inum being scanned
level (INT): Level of the buftree being scanned
fbn (LONGINT): Block number containing unknown
index (INT): Index in block that is unknown
pvbn (LONGINT): PVBN as found in the buftree
pvbn2 (LONGINT): PVBN as found in the container indirect

wafl.pvbn.check.found.unknown

Severity

NOTICE

Description

This event is issued to inform the user that the pvbn check has found a pvbn unknown.

Corrective Action

This message may be disabled by passing -s to wafl scan pvbn_check when starting the scanner.

Syslog Message

PVBN check has found a pvbn unknown on %s, snapid=%d, %s ino=%d, level=%d, fbn=%llu, index=%d.

Parameters

vol (STRING): The volume name
snapid (INT): ID of the snapshot being scanned
ino_type (STRING): The inode type
inum (INT): Inum being scanned
level (INT): Level of the buftree being scanned
fbn (LONGINT): Block number containing unknown
index (INT): Index in block that is unknown

wafl.pvbn.check.no.snapshot

Severity

INFORMATIONAL

Description

This event is issued to inform the user that the snapshot being scanned by the pvbn checker no longer exists.

Corrective Action

This message may be disabled by passing -s to wafl scan pvbn_check when starting the scanner.

Syslog Message

PVBN check on %s aborted, snapshot with snapid %d is gone.

Parameters

vol (STRING): The volume name
snapid (INT): ID of the snapshot that no longer exists

wafl.qat events

wafl.qat.offload.engine.error

Severity

ALERT

Description

This message occurs when hardware offload engine (QAT) has failed to process a request.

Corrective Action

Contact NetApp technical support.

Syslog Message

%s [%d]

Parameters

msg (STRING): Error message to be displayed.
err (INT): Error code received.

wafl.qtree events

wafl.qtree.id.mismatch

Severity

ERROR

Description

This message occurs when a qtree ID derived from a WAFL® buffer does not match the given tree ID in a snapshot.

Corrective Action

Delete the snapshot containing the qtree for non SnapMirror® DP volumes. For SnapMirror DP volumes, run wafliron with the "-include-mirrors" option set to true to fix the entry. For example, run the "wafliron start -aggr aggr_name -include-mirrors true" command, where aggr_name is the aggregate for the given volume.

Syslog Message

Qtree ID %d is recorded as ID %d in %s %s%s%s%s in snapshot %d.

Parameters

tid (INT): Source tree identifier.
id (INT): Qtree root identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapId (INT): Snapshot identifier.

wafl.qtree.invalid.state

Severity

ERROR

Description

This message occurs when the qtree file in a snapshot is in an invalid state.

Corrective Action

Delete the snapshot containing the qtree for non SnapMirror® DP volumes. For SnapMirror DP volumes, run wafliron with the "-include-mirrors" option set to true to fix the entry.For example, run the "wafliron start -aggr aggr_name -include-mirrors true" command, where aggr_name is the aggregate for the given volume.

Syslog Message

Qtree file in %s %s%s%s%s is in an invalid state %d in snapshot %d.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is

insufficient.
reason (INT): State of the qtree file.
snapId (INT): Snapshot identifier.

wafl.qtree.metafile.corrupt

Severity

ERROR

Description

This message occurs when the qtree metafile in a snapshot is inconsistent.

Corrective Action

Run wafliron to fix the inconsistent volume. Use the "-include-mirrors" option if the volume is a SnapMirror® DP volume. For example, run the "wafliron start -aggr aggr_name -include-mirrors true" command, where aggr_name is the aggregate for the given volume.

Syslog Message

Qtree metafile inconsistent in volume %s%s%s, snapshot %d.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
snapId (INT): Snapshot identifier.

wafl.qtree.qsmBreak.base

Severity

ERROR

Description

This message occurs when the SnapMirror® information of the qtree is being removed as result of WAFL_check operation.

Corrective Action

Use the "snapmirror resync" or "snapmirror initialize" to reestablish the SnapMirror relationship.

Syslog Message

Breaking SnapMirror qtree %d in %s %s%s%s%s: base snapshot no longer exists. Use the "snapmirror resync" or "snapmirror initialize" to reestablish the SnapMirror relationship.

Parameters

qtree (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.qtree.qsmBreak.iron

Severity

ERROR

Description

This message occurs when the SnapMirror® information of the qtree is being removed as result of a wafliron operation.

Corrective Action

Use the "snapmirror resync" or "snapmirror initialize" command to reestablish the SnapMirror relationship.

Syslog Message

Breaking SnapMirror qtree %d in %s %s%s%s%s: wafliron broke all SnapMirror relationships in %s %s%s%s%s. Use the "snapmirror resync" or "snapmirror initialize" command to reestablish the SnapMirror relationship.

Parameters

qtree (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident1 (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
type2 (STRING): Type of object (volume or aggregate).
owner2 (STRING): Volume owner.
vol2 (STRING): Volume name.
app2 (STRING): Application UUID.
volident2 (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.qtree.qsmBreak.wc

Severity

ERROR

Description

This message occurs when snapmirror information of the qtree is being removed as result of wack

Corrective Action

Use the "snapmirror resync" or "snapmirror initialize" command to reestablish the SnapMirror relationship.

Syslog Message

Breaking SnapMirror qtree %d in %s %s%s%s%s: WAFL_check broke all SnapMirror relationships in %s %s%s%s%s. Use the "snapmirror resync" or "snapmirror initialize" command to reestablish the SnapMirror relationship.

Parameters

qtree (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.

volident1 (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
type2 (STRING): Type of object (volume or aggregate).
owner2 (STRING): Volume owner.
vol2 (STRING): Volume name.
app2 (STRING): Application UUID.
volident2 (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.quota events

wafl.quota.control.inconsistent

Severity

ERROR

Description

This message occurs when the quota control file is inconsistent, or when it is consistent but the qtree metatdata file refers to a vFiler(tm) unit that no longer exists.

Corrective Action

Reinitialize quotas for the volume.

Syslog Message

Quota: /vol/%s%s%s or a quota tree on it referred to a nonexistent vFiler unit. Quota: Quotas have been turned off.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.quota.control.invalid

Severity

ERROR

Description

This message occurs when the system discovers that an invalid quota control file exists.

Corrective Action

Reinitialize quotas for the volume.

Syslog Message

Quota: Invalid quota control file on %s %s%s%s%s. Quota: Quotas have been turned off.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.quota.db.createFail

Severity

NOTICE

Description

This message occurs when the system cannot create the quota database file.

Corrective Action

(None).

Syslog Message

Quota: Could not create the quota database on %s %s%s%s%s (volume might be full).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.quota.db.missing

Severity

ERROR

Description

This message occurs when the system is unable to locate a quota usage database.

Corrective Action

Reinitialize quotas for the volume.

Syslog Message

WAFL: No quota usage database on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.quota.db.noMemory

Severity

ERROR

Description

This message occurs when the system cannot allocate the quota usage database during initialization.

Corrective Action

Add more memory or upgrade the hardware.

Syslog Message

WAFL: Could not obtain memory during load of quota usage database. The quota system was not started on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.quota.db.scanFailed

Severity

ERROR

Description

This event is issued when the system tries and fails to start the scanner necessary to complete a "quota on" command.

Corrective Action

Quota initialization has failed due to lack of resources. Re-running a "quota on" after some time should solve the problem.

Syslog Message

wafl: quota initialization could not be started on %s %s%s%s%s due to lack of resources. Please wait and re-run "quota on".

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.quota.group.exceeded

Severity

NOTICE

Description

This event is issued when a group quota has been exceeded on a volume. This event will not be repeated for this group for a set time for until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage by members of this group on this volume or increase the quota and run 'quota resize'.

Syslog Message

gid %d: disk quota exceeded on volume %s%s%s%s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

id (INT): The group identifier
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
mins (INT): Number of minutes warnings will be supressed

wafl.quota.groupQtree.correct

Severity

NOTICE

Description

This message occurs when a group quota has been corrected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

id (INT): Group identifier.
tid (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfwarn (STRING): vFiler warning suffix.

wafl.quota.groupQtree.exceeded

Severity

NOTICE

Description

This event is issued when a group quota has been exceeded on a tree. This event will not be repeated for this group and tree for a set time or until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage by members of this group in this tree or increase the quota and run 'quota resize'.

Syslog Message

gid %d tid %d: disk quota exceeded on volume %s%s%s%s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

id (INT): The group identifier
tid (INT): The tree identifier
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
mins (INT): Number of minutes warnings will be supressed

wafl.quota.names.createFail

Severity

NOTICE

Description

This message occurs when the system cannot create the quota names file.

Corrective Action

(None).

Syslog Message

quota: Could not create new quota names file on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.quota.ntfs.defaultAclFail

Severity

NOTICE

Description

This message indicates that the system was unable to set the default ACL on an NTFS volume.

Corrective Action

Set the security style to NTFS again or re-create the volume.

Syslog Message

Unable to set default ACL on NTFS %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.quota.off.vol.fail

Severity

ERROR

Description

This message occurs when the system could not turn off quotas on the volume.

Corrective Action

Use the 'quota off' command to turn off quotas on the volume.

Syslog Message

Quotas could not be turned off on volume %s%s.

Parameters

owner (STRING): Owner of the volume
vol (STRING): Name of the volume

wafl.quota.qtree.correct

Severity

NOTICE

Description

This message occurs when a tree quota has been corrected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

tid (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfwarn (STRING): vFiler warning suffix.

wafl.quota.qtree.exceeded

Severity

NOTICE

Description

This event is issued when a tree quota has been exceeded on a volume. This event will not be repeated for this tree for a set amount of time or until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage in this tree or increase the quota and run 'quota resize'.

Syslog Message

tid %d: tree quota exceeded on %s %s%s%s%s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

tid (INT): The tree identifier
type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
mins (INT): Number of minutes warnings will be suppressed
object_uuid (STRING): Volume instance UUID of the resource object.

wafl.quota.sec.change

Severity

INFORMATIONAL

Description

This message indicates that the security style for a directory has been changed.

Corrective Action

(None).

Syslog Message

security style for /vol/%s%s%s/%s changed from %s to %s

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
dir (STRING): Directory name.
ostyle (STRING): Former security style.
nstyle (STRING): New security style.

wafl.quota.user.exceeded

Severity

NOTICE

Description

This event is issued when a user quota has been exceeded on a volume. This event will not be repeated for this user and volume for a set time or until a 'quota resize' is performed. The amount of time is set by the

'quota logmsg' command.

Corrective Action

Reduce usage by this user on this volume or increase the quota and run 'quota resize'.

Syslog Message

uid %d: disk quota exceeded on volume %s%s%s%s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

id (INT): The user identifier
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
mins (INT): Number of minutes warnings will be supressed

wafl.quota.user.exceeded.win

Severity

NOTICE

Description

This event is issued when a user quota has been exceeded on a volume. This event will not be repeated for this user and volume for a set time or until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage by this user on this volume or increase the quota and run 'quota resize'.

Syslog Message

disk quota exceeded on volume %s%s%s%s for Windows user ID: %s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
id (STRING): Windows user identifier
mins (INT): Number of minutes warnings will be supressed

wafl.quota.userQtree.correct

Severity

NOTICE

Description

This message occurs when a user quota has been corrected.

Corrective Action

(None).

Syslog Message

(None).

Parameters

id (INT): User identifier.
tid (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfwarn (STRING): vFiler warning suffix.

wafl.quota.userQtree.correct.win

Severity

NOTICE

Description

This message occurs when a user quota has been corrected and the user ID is a SID.

Corrective Action

(None).

Syslog Message

(None).

Parameters

id (STRING): Windows identifier value.
tid (INT): Qtree identifier.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume in cases in which the volume name alone is insufficient.
vfwarn (STRING): vFiler warning suffix.

wafl.quota.userQtree.exceeded

Severity

NOTICE

Description

This event is issued when a user quota has been exceeded on a tree. This event will not be repeated for this user and tree for a set time or until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage by this user in this tree or increase the quota and run 'quota resize'.

Syslog Message

uid %d tid %d: disk quota exceeded on volume %s%s%s%s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

id (INT): The user identifier
tid (INT): The tree identifier
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
mins (INT): Number of minutes warnings will be supressed

wafl.quota.userQtree.exceeded.win

Severity

NOTICE

Description

This event is issued when a user quota has been exceeded on a tree. This event will not be repeated for this user and tree for a set time or until a 'quota resize' is performed. The amount of time is set by the 'quota logmsg' command.

Corrective Action

Reduce usage by this user in this tree or increase the quota and run 'quota resize'.

Syslog Message

tid %d: disk quota exceeded on volume %s%s%s%s for Windows user ID: %s. Additional warnings will be suppressed for approximately %d minutes or until a 'quota resize' is performed.

Parameters

tid (INT): The tree identifier
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
id (STRING): Windows user identifier
mins (INT): Number of minutes warnings will be supressed

wafl.raid events

wafl.raid.cft.aggr.snapshot.missing

Severity

ERROR

Description

This message occurs during an aggregate transition workflow when an aggregate snapshot created in a 7-Mode environment is missing.

Corrective Action

Return the disks to the 7-Mode environment, create the snapshot for the aggregate, and then repeat the transition workflow.

Syslog Message

Aggregate transition failed for aggregate %s due to unavailability of the 7-Mode aggregate snapshot.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.raid.incons.buf

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects an inconsistent block on a disk. Access to the block is disabled until corrective action is taken.

Corrective Action

Use the "volume file show-inode" command with the file ID and volume name information to find the file path. If the volume is inconsistent, run wafliron as soon as possible to clear the inconsistency. For a SnapMirror® target, rebuild from the source or resynchronize. If the block is in a snapshot, delete the snapshot. If the problem persists, contact NetApp technical support for more options.

Syslog Message

WAFL inconsistent: bad block at VBN %llu (vvbn:%llu fbn:%llu level:%u) in %s inode (fileid:%s snapid:%u fixable:%d file_type:%d disk_flags:0x%x error:%u raid_set:%d) in volume %s%s%s%s.

Parameters

vbn (LONGINT): Volume block number.
vvbn (LONGINT): Virtual block number.
fbn (LONGINT): File block number.
level (INT): Buffer level.
file_space (STRING): File space.
fileid (STRING): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
fixable (INT): Boolean value indicating whether iron can repair this block.
type (INT): File type.
flags (LONGINT): Inode disk flags.
error (INT): Error on the block.
raid_set (INT): Boolean indicating whether RAID set the error.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.raid.incons.clear.error

Severity

NOTICE

Description

This message occurs when Data ONTAP® resets the error on a data block.

Corrective Action

Contact NetApp technical support.

Syslog Message

Resetting error (%u) on data block in %s inode (fileid:%u snapid:%u fbn:%llu level:%u) in volume %s%s%s%s

Parameters

error (INT): Error number that was reset.
inotype (STRING): Inode space (public or private).
fileid (INT): Identifying number for the inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
fbn (LONGINT): File block number.
level (INT): Buffer level.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

wafl.raid.incons.dir.block

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects an inconsistent directory block on disk, causing some entries on the directory not to appear. The message indicates the fileid and snapshot of the block being accessed.

Corrective Action

The volume has a bad directory block. Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Recover the directory from a backup. For a SnapMirror® target, rebuild from the source or resynchronize. If the block is in a snapshot, delete the snapshot. Then contact NetApp technical support.

Syslog Message

WAFL inconsistent: bad directory block in inode (fileid:%u snapid:%u) in volume %s%s%s%s.

Parameters

fileid (INT): Identifying number for the suspect inode
snapid (INT): Snapshot identifier. (0) - active file system. (non-zero) - refers to snapshot.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.

volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.raid.incons.set.err.obj

Severity

ALERT

Description

This message occurs when Data ONTAP® marks a block in a capacity tier object with an error. This is useful for tracking movement of pseudobad and unverified blocks.

Corrective Action

Contact Contact NetApp technical support..

Syslog Message

Data block at VBN %llu tiered to capacity tier (objid %llu, slot %u, btuuid %s, seqno %llu) and marked with error (%u). Block previously had error (%u).

Parameters

vbn (LONGINT): Volume block number.
object_id (LONGINT): Object identifier.
slot (INT): Slot number.
btuuid (STRING): Buftree UUID.
seqno (LONGINT): Sequence number.
error (INT): Error on the block.
prev_error (INT): Previous error on the block.

wafl.raid.incons.set.error

Severity

ALERT

Description

This message occurs when Data ONTAP® marks an on-disk data block with an error. This is useful for tracking pseudo bad and unverified blocks.

Corrective Action

Contact NetApp technical support.

Syslog Message

Data block in %s inode (fileid: %u snapid: %u fbn: %llu level: %u) in volume %s%s%s%s marked with error (%u) by %s. Block previously had error (%u).

Parameters

inotype (STRING): Inode space (public or private).
fileid (INT): Identifying number for the inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
fbn (LONGINT): File block number.
level (INT): Buffer level.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.

volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.
error (INT): Error on the block.
module (STRING): Module that is marking the block with the error.
prev_error (INT): Previous error on the block.

wafl.raid.incons.snapmap

Severity

NOTICE

Description

This message occurs when WAFL detects a RAID inconsistency error in a snapmap block. The message recommends to delete the snapshot in which inconsistent snapmap resides.

Corrective Action

(None).

Syslog Message

Snapshot(snapid %u) block accounting metadata is corrupted. To avoid trapping unnecessary blocks in the snapshot, please delete the snapshot.

Parameters

snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot

wafl.raid.incons.snapmap.chk

Severity

NOTICE

Description

This message occurs when the WAFL® kernel detects a RAID inconsistency error in a snapshot active map block, even though the block content passes a metadata check.

Corrective Action

Contact NetApp technical support.

Syslog Message

(None).

Parameters

fbn (LONGINT): File block number.
level (INT): Buffer level.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.

wafl.raid.incons.snapshot

Severity

ERROR

Description

This message occurs when WAFL® detects a RAID inconsistency error in a snapshot. The message indicates what snapshots have the inconsistent block, and how to recover from the inconsistency.

Corrective Action

Delete the specified snapshot(s) during the next reboot, either by using the boot menu command 'boot_snap_delete' or by using the CLI command 'vol online -r'.

Syslog Message

VBN %llu has RAID inconsistency errors on volume %s. This block is in use by one or more snapshots. These snapshots should be deleted in the next boot. The affected snapshot IDs are: %s.

Parameters

vbn (LONGINT): Virtual block number.
volname (STRING): Name of the volume.
snapstring (STRING): The string containing the list of snapid(s) of the snapshots that have the inconsistent blocks.

wafl.raid.incons.ssd.cached.buf

Severity

NOTICE

Description

This message occurs when the WAFL® kernel detects an inconsistent cached block on a ssd disk in a hybrid aggregate. Any access to this block will result in the io getting redirected to the source location on hdd disk.

Corrective Action

An error on a cached ssd block will not result in bad data being served to the reader: the io will be redirected to hdd and the correct data will be served. So, no corrective action is necessary for this case. But, if there are many errors on data cached on ssd disks, then the ssd disks may be verified for disk consistency.

Syslog Message

WAFL inconsistent: bad cached ssd block %llu (vvbn:%llu fbn:%llu level:%u) in %s inode (fileid:%s snapid:%u file_type:%d disk_flags:0x%x error:%u) in volume %s%s%s%s. IO will be redirected to the source hdd block %llu.

Parameters

vbn (LONGINT): Volume SSD block number.
vvbn (LONGINT): Virtual block number.
fbn (LONGINT): File block number.
level (INT): Buffer level.
file_space (STRING): File space: private or public.
fileid (STRING): Identifying number for the inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
type (INT): File type.
flags (LONGINT): Inode disk flags.

error (INT): Error on the block.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
hdd_vbn (LONGINT): Volume HDD block number.

wafl.raid.incons.userdata

Severity

ERROR

Description

This message occurs when the WAFL® kernel detects an inconsistent user data block on a disk. Access to this block is disabled until you recover it from a backup.

Corrective Action

The volume has an inconsistent user data block. Use the "volume file show-inode" command with the file ID and volume name information to find the file path. Recover the file from a backup. For a SnapMirror® target, rebuild from the source or resynchronize. If the block is in a snapshot, delete the snapshot. Contact NetApp technical support for more options.

Syslog Message

WAFL inconsistent: inconsistent user data block at VBN %llu (vvbn:%llu fbn:%llu level:%u) in %s inode (fileid:%s snapid:%u file_type:%d disk_flags:0x%x error:%u raid_set:%d) in volume %s%s%s%s.

Parameters

vbn (LONGINT): Volume block number.
vvbn (LONGINT): Virtual block number.
fbn (LONGINT): File block number.
level (INT): Buffer level.
file_space (STRING): File space.
fileid (STRING): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
type (INT): File type.
flags (LONGINT): Inode disk flags.
error (INT): Error on the block.
raid_set (INT): Boolean indicating whether RAID set the error.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.raid.incons.xidata

Severity

EMERGENCY

Description

This message occurs when the WAFL® kernel detects an inconsistent extended inode data block on disk.

Corrective Action

Contact NetApp technical support.

Syslog Message

WAFL inconsistent: bad extended inode data block at VBN %llu (vvbn:%llu fbn:%llu) in inode (fileid:%u snapid:%u disk_flags:0x%x error:%u raid_set:%d) in volume %s%s%s%s.

Parameters

vbn (LONGINT): Volume block number.
vvbn (LONGINT): Virtual block number.
fbn (LONGINT): File block number.
fileid (INT): Identifying number for the suspect inode.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
flags (LONGINT): Inode disk flags.
error (INT): Error on the block.
raid_set (INT): Boolean indicating whether RAID set the error.
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
inotype (STRING): Inode space (public or private).

wafl.rclm events

wafl.rclm.est.scan.done

Severity

NOTICE

Description

This message occurs when an attempt to estimate the space that can be reclaimed for the aggregate was completed successfully.

Corrective Action

(None).

Syslog Message

Estimate Reclaim Scanner done for %s with estimated free logical blocks=%llu, physical blocks=%llu, duration=%ld ms.

Parameters

aggr (STRING): Aggregate name.
logical_free_blks (LONGINT): Estimated number of reclaimable logical blocks found by the scanner.
physical_free_blks (LONGINT): Estimated number of reclaimable physical blocks found by the scanner.
run_time (LONGINT): Duration of the scan in milliseconds.

wafl.readdir events

wafl.readdir.expired

Severity

ERROR

Description

This message occurs when a READDIR file operation has exceeded the timeout that it is allowed to run in WAFL. This can be the result of very large or sparse directories, and corrective action is recommended.

Corrective Action

You can find information specific to recent directories that have had READDIR file operations expire by using the 'diag' privilege nodeshell CLI command: "wafl readdir notice show" If a directory is indicated as sparse, it is recommended that you copy the contents of the directory to a new directory to remove the sparseness of the directory file. If a directory is not indicated as sparse and the directory is large, it is recommended that you reduce the size of the directory file by reducing the number of file entries in the directory.

Syslog Message

A READDIR file operation has expired for the directory associated with volume "%s%s/%s" snapshot ID %d and inode %d.

Parameters

volume (STRING): Volume name that the directory is in.
app (STRING): Application universal unique identifier (UUID).
volident (STRING): Volume identifier to uniquely identify the volume in cases where the volume name alone is insufficient.
snapid (LONGINT): Snapshot ID that the directory is in.
directory_inum (LONGINT): The inode number (file ID) of the directory.
object_uuid (STRING): Volume instance UUID of the resource object.

wafl.readdir.sparse

Severity

NOTICE

Description

This message occurs when a READDIR file operation detects that a directory is sparse while iterating over its directory entries. Iterating over sparse directories could negatively impact performance on the node.

Corrective Action

You can find information specific to directories that have had READDIR file operations detect a sparse directory by using the 'diag' privilege nodeshell CLI command: "wafl readdir notice show" It is recommended that you copy the contents of the directory to a new directory to remove the sparseness of the directory file.

Syslog Message

A READDIR file operation has detected that a directory associated with volume %s%s/%s snapshot ID %d and inode %d is sparse.

Parameters

volume (STRING): Volume name that the directory is in.
app (STRING): Application UUID.
volident (STRING): Volume identifier to uniquely identify the volume in cases where the volume name

alone is insufficient.
snapid (LONGINT): Snapshot ID the that the directory is in.
directory_inum (LONGINT): The inode number (fileid) of the directory.

wafl.reallocate events

wafl.reallocate.aggr.interrupt

Severity

INFORMATIONAL

Description

This message occurs when an aggregate reallocation scan is interrupted. The scan was scheduled using the 'reallocate -A' command.

Corrective Action

None required.

Syslog Message

Aggregate reallocation scan on '%s' was interrupted.

Parameters

path (STRING): Scan path.

wafl.reallocate.check.high

Severity

INFORMATIONAL

Description

This event is issued if an allocation check scan (issued before reallocation starts) returns indicating that the path requires reallocation.

Corrective Action

None required. The reallocation scan will automatically be started.

Syslog Message

Allocation check on '%s' is %d, hotspot %d (threshold %d), so will reallocate.

Parameters

path (STRING): The scan path
optim (INT): The current optimization of the path
hot_spot (INT): The current hot-spot optimization of the path
threshold (INT): The reallocation threshold of the path

wafl.reallocate.check.highAdvise

Severity

INFORMATIONAL

Description

This event is issued if an allocation check scan returns indicating that the path would benefit from reallocation.

Corrective Action

Consider reallocating the path (see na_reallocate(1))

Syslog Message

Allocation check on '%s' is %d, hotspot %d (threshold %d), consider running reallocate.

Parameters

path (STRING): The scan path
optim (INT): The current optimization of the path
hot_spot (INT): The current hot-spot optimization of the path
threshold (INT): The reallocation threshold of the path

wafl.reallocate.check.value

Severity

INFORMATIONAL

Description

This event is issued to report the optimization of a path.

Corrective Action

None required.

Syslog Message

Allocation measurement check on '%s' is %d.

Parameters

path (STRING): The scan path
optim (INT): The path optimization.

wafl.reallocate.full.done

Severity

INFORMATIONAL

Description

This event is issued to report the completion of a full, one-time, reallocation scan.

Corrective Action

None required.

Syslog Message

Full reallocation on '%s' is complete.

Parameters

path (STRING): The scan path

wafl.reallocate.full.interrupt

Severity

INFORMATIONAL

Description

This event is issued to report that a full, one-time, reallocation scan was interrupted.

Corrective Action

None required.

Syslog Message

Full reallocation on '%s' was interrupted.

Parameters

path (STRING): The scan path

wafl.reallocate.path.invalid

Severity

ERROR

Description

This event is issued if an invalid scan path is detected.

Corrective Action

Check why the scan path is invalid, including file removal or volume offline. If the condition is persistent remove the associated reallocation scan.

Syslog Message

Unavailable/invalid reallocation path '%s' detected.

Parameters

path (STRING): The scan path

wafl.reallocate.recheck.ok

Severity

INFORMATIONAL

Description

This event is issued if an allocation recheck scan (issued after reallocation has completed) returns indicating the optimization is under the threshold.

Corrective Action

None required.

Syslog Message

Allocation check on '%s' is under threshold.

Parameters

>**path** (STRING): The scan path

wafl.reallocate.scan.exists

Severity

>INFORMATIONAL

Description

>This event is issued if an attempt is made to add a new reallocation scan but a scan job already exists for the supplied path.

Corrective Action

>Check the path is correct. If it is correct then delete the previous reallocation job, and add a new one. Use the 'reallocate status' command to list reallocation jobs.

Syslog Message

>A reallocation scan for %s already exists.

Parameters

>**path** (STRING): The path with the scan.

wafl.reallocate.scan.noStart

Severity

>NOTICE

Description

>Reallocation tasks, such as measuring the layout of a file or performing block reallocation, may be perfomed using an asynchronous WAFL scanner. This event is issued if an error occurs unexpectedly while trying to start such a WAFL scanner.

Corrective Action

>(Call support).

Syslog Message

>reallocate: unable to start '%s' scanner for '%s': %d (%s)

Parameters

>**scan_type** (STRING): The type of scan operation.
>**path** (STRING): The scan path or aggregate name.
>**err_code** (INT): A numerical error code indicating the reason why the scanner could not be started.
>**err_string** (STRING): A string interpreting the err_code.

wafl.reallocate.scan.remove

Severity

>INFORMATIONAL

Description

This event is issued when a reallocation job is persistently removed from the system.

Corrective Action

None required.

Syslog Message

Reallocation scan for '%s' is being removed.

Parameters

path (STRING): The path with the scan.

wafl.reallocate.schedule.invalid

Severity

ERROR

Description

This event is issued if an invalid reallocation schedule is detected.

Corrective Action

Correct the schedule syntax then retry the operation

Syslog Message

Invalid schedule: %s

Parameters

reason (STRING): The reason why the schedule is invalid

wafl.relocate events

wafl.relocate.statusvol.fail

Severity

ERROR

Description

This message occurs when the system cannot perform an aggregate relocation because one or more of its volumes are used by wafliron to host status files. The relocation is aborted.

Corrective Action

Use "aggr wafliron show" command to monitor the status of wafliron and retry aggregate relocation after wafliron is complete.

Syslog Message

%s %s%s%s%s is being used by wafliron to host status files. Canceling aggregate relocation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.

app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.relocate.vetoedByNvsave

Severity

ERROR

Description

This message occurs when an aggregate relocation is vetoed because there are NVSave files for an aggregate or a flexible volume that must be replayed before the aggregate or flexible volume can be relocated.

Corrective Action

Retry the aggregate relocation after the NVSave files either are replayed (by bringing the aggregate or flexible volume online) or deleted from the root volume. Successful replay, for example, is indicated by the EMS message 'wafl.nvsave.replaying.pass'.

Syslog Message

Aggregate relocation vetoed because NVSave files are present for %s FSID %d name %s%s%s. UUID is %s.

Parameters

vol_type (STRING): Whether this message applies to an aggregate or a flexible volume.
fsid (INT): File system identifier.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases in which the volume name itself is insufficient.
UUID (STRING): UUID of the volume.

wafl.relocating events

wafl.relocating.fence.fail

Severity

ERROR

Description

This message occurs when the system cannot perform an aggregate relocation because a fence is set on one of the volumes in the aggregate. The relocation is aborted.

Corrective Action

A volume in the aggregate is currently fenced for group operations. Retry aggregate relocation after any group SnapRestore® or mirror transfers are complete. If the problem persists, contact technical support.

Syslog Message

%s %s%s%s%s has a fence set. Canceling aggregate relocation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.relocating.iron.fail

Severity

ERROR

Description

This message occurs when the system cannot perform an aggregate relocation because wafliron is active. The relocation is aborted.

Corrective Action

Retry aggregate relocation after wafliron is finished.

Syslog Message

%s %s%s%s%s is running vol wafliron. Canceling aggregate relocation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.relocating.sp.fail

Severity

ERROR

Description

This message occurs when the system cannot perform an aggregate relocation because a secure purge operation is in progress on one of the volumes in the aggregate. The relocation is aborted.

Corrective Action

A volume in the aggregate is currently going through a secure purge operation. Retry aggregate relocation after this operation is complete, or after you abort the operation by using the "volume encryption secure-purge abort" command. If the problem persists, contact NetApp technical support.

Syslog Message

A secure purge operation is in progress on %s %s%s%s. Canceling aggregate relocation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.repl events

wafl.repl.badTimestamp

Severity

NOTICE

Description

This message occurs when a replication operation receives a timestamp with an invalid nanoseconds portion, and clears it.

Corrective Action

(None).

Syslog Message

Encountered invalid %s time on inode %u of volume %u.

Parameters

type (STRING): Type of timestamp.
inode_num (INT): Identifier of the affected file.
fsid (INT): Identifier of the volume.

wafl.repl.maxdirsize.notice

Severity

NOTICE

Description

This message occurs when WAFL® sets the maximum directory size of a SnapMirror® destination volume to a value higher than its default during a SnapMirror transfer.

Corrective Action

(None).

Syslog Message

The maxdirsize (%u KB) of volume %s (FSID %u) is higher than the default (%u KB). There might be a performance penalty when doing operations on large directories. This was generated for a SnapMirror relationship with ID %s.

Parameters

current_maxdirsize (INT): Current maximum directory size value.
vol (STRING): Name of the volume.
volFsid (INT): File system ID (FSID) of the volume.
default_maxdirsize (INT): Default maximum directory size value.
SnapMirrorID (STRING): Unique ID of the SnapMirror relationship for this operation, which can be used to match this message with messages for the same relationship in other logs (for example, the SnapMirror log at /mroot/etc/log/snapmirror_audit).

wafl.repl.src.inconsistent

Severity

ERROR

Description

This message occurs when the replication source engine encounters a disk error in the file system metadata. Replication transfer will abort.

Corrective Action

Run wafliron to fix the active file system. To continue replication transfer, delete the snapshots containing this bad block.

Syslog Message

%s: %s%s%s%s: WAFL metadata inconsistent due to disk errors. (vvbn:%u level:%u file_type:%d). Aborting transfer.

Parameters

vol_type (STRING): Whether the block was being accessed for a volume or an aggregate.
owner (STRING): String indicating the owner of the affected volume or aggregate.
vol (STRING): Name of the volume or aggregate.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
vvbn (INT): Virtual Volume Block Number.
level (INT): Buffer level.
file_type (INT): File type.

wafl.repl.zombie.scan.susp

Severity

INFORMATIONAL

Description

This message occurs when a logical break zombie restart is going through a scan of composite zombies and it suspends the incoming client composite delete requests.

Corrective Action

(None).

Syslog Message

The deletion of file with fileid %d is suspended because volume %s (FSID %u) is going through a logical break. The file delete will be resumed after logical break is complete.

Parameters

fileid (INT): File identifier.
vol (STRING): Name of the volume.
volFsid (INT): File system ID (FSID) of the volume.

wafl.replay events

wafl.replay.aggr.early.mt

Severity

NOTICE

Description

This message occurs when a partner aggregate is mounted early before replay.

Corrective Action

(None).

Syslog Message

Partner aggregate %s is mounted early before WAFL NV log replay.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.replay.completed

Severity

NOTICE

Description

This message occurs when WAFL® replay is complete following an abrupt failure, such as a panic. This event logs the time spent in the various phases of WAFL replay.

Corrective Action

(None).

Syslog Message

(None).

Parameters

log (STRING): Entry count, bytes used, and duration of operation replay.
catalog (STRING): Catalog statistics for WAFL replay.
swarm (STRING): Information about the cost of operations during WAFL replay.
nvce (STRING): Information about number of nvce hits, skips and misses during WAFL replay.

wafl.replay.early.mounted

Severity

NOTICE

Description

This message occurs when partner aggregates are mounted early before replay.

Corrective Action

(None).

Syslog Message

%d of %d partner aggregates are mounted early before WAFL NV log replay.

Parameters

early_aggrs (INT): Number of aggregates mounted early.
total_aggrs (INT): Total number of data aggregates being replayed.

wafl.replay.nvlog.ignore.entries

Severity

NOTICE

Description

This message occurs when entries are being ignored during replay.

Corrective Action

(None).

Syslog Message

%s Ignoring entries in %s log %d for %s %s%s%s%s FSID 0x%x. Volume CP count:%d, Log count: %d.

Parameters

reason (STRING): Reason for ignoring entries.
log_host (STRING): Host in replay.
log (INT): Log section identifier.
voltype (STRING): Volume type: volume or aggregate.
volowner (STRING): Owner of the volume: local or partner.
app (STRING): Application UUID.
volname (STRING): Name of the volume or aggregate.
server_uuid (STRING): Vserver's Universal Unique Identifier (UUID), if any.
FSID (INT): File system identifier.
vol_cp_count (INT): Consistency Point (CP) count on the volume.
log_cp_count (INT): CP count found in the nvlog.

wafl.replay.nvlog.not.needed

Severity

NOTICE

Description

This message occurs when all entries in a log were ignored, so no replay was performed.

Corrective Action

(None).

Syslog Message

No replay was required for %s log %d.

Parameters

log_host (STRING): Host in replay.
log (INT): Log section identifier.

wafl.replay.resource.limited

Severity

NOTICE

Description

This message occurs when the WAFL replay admin cannot obtain all of the system resources required to allocate the optimal number of replay messages.

Corrective Action

(None).

Syslog Message

(None).

Parameters

log_no (INT): The NVLOG log number.
host (INT): The host in replay.
msgs_wanted (INT): The number of replay messages requested.
msgs_allocated (INT): The number of replay messages allocated.

wafl.replay.swizzle.fsid

Severity

INFORMATIONAL

Description

The volume was using the old FSID at the time the operations were recorded in the NVLog. Now that the filer is about to replay logged operations, the filer will use the new FSID for the volume. No corrective action is required.

Corrective Action

(None).

Syslog Message

FSID collision mapping created during replay for %s %s%s%s old fsid:%x, new fsid:%x, uuid:%s.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
app (STRING): Application UUID.
volident (STRING): Unique Identifier of the volume in cases where the volume name itself is insufficient.
old_fsid (INTHEX): Old filesystem identifier
new_fsid (INTHEX): New filesystem identifier
uuid (STRING): UUID of the volume

wafl.root events

wafl.root.content.changed

Severity

ERROR

Description

This message occurs when the contents of the root volume are changed to those of a previous point in time. One of the following operations or events can cause the contents of the root volume to change: - The root volume is changed from the boot menu. - The nvlog is jettisoned. - The system is booted with prev_cp. - The 'wafliron -prev_cp' command is used and the changes are commited. - A SnapRestore® operation is done on the root volume.

Corrective Action

Verify that all recent configuration changes are still in effect.

Syslog Message

Contents of the root volume '%s' might have changed. Verify that all recent configuration changes are still in effect.

Parameters

vol (STRING): Name of the root volume.

wafl.root.create

Severity

INFORMATIONAL

Description

This message occurs when the system creates a root volume.

Corrective Action

(None).

Syslog Message

New root volume %s created.

Parameters

vol (STRING): Name of the root volume.

wafl.root.mark.error

Severity

NOTICE

Description

This event is issued when there is an error in syncing the vvol raid label of a newly created root volume.

Corrective Action

(None).

Syslog Message

Error setting volume %s%s as root. Changes may not be saved.

Parameters

vol (STRING): The root volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.root.overwritesUnsafe

Severity

ERROR

Description

This message occurs when the root volume is not volume guaranteed or does not guarantee overwrites for space reserved files.

Corrective Action

Set the Space Guarantee on the root volume to "volume" and the Fractional Reserve on the root volume to 100%.

Syslog Message

Root volume %s does not protect overwrites in space reserved files.

Parameters

vol (STRING): Root volume name.

wafl.root.volume.create.fail

Severity

EMERGENCY

Description

This message occurs when root volume creation fails during cluster create or cluster join. Failure to create a root volume, required for storage of critical system data, will leave the system in an unusable state.

Corrective Action

Based on the error in the event, resolve the problem that is causing the error condition before retrying the operation. If the error condition persists, contact NetApp technical support.

Syslog Message

Root volume creation fails. Error: %s.

Parameters

error (STRING): Reason for the failure.

wafl.s2c events

wafl.s2c.snap.check.failed

Severity

ERROR

Description

This message occurs when SnapMirror® logical transfer is not possible due to incompatible snapshot.

Corrective Action

Create new snapshot on the source volume and use that for Logical transfer.

Syslog Message

SnapMirror operation failed in volume '%s%s%s' for snapshot ID %d because %s.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
snapId (INT): Identifier for the snapshot.
reason (STRING): Specific reason for failure.

wafl.s2c.snap.lang.mismatch

Severity

ERROR

Description

This message occurs when SnapMirror® restore cannot proceed due to language mismatch at source and destination end.

Corrective Action

Create new volume with correct language settings.

Syslog Message

SnapMirror operation failed in %s because of language mismatch between source and destination.Language at destination: '%s'. Language at source: '%s'.

Parameters

vol (STRING): Name of the volume.
src_lang_setting (STRING): Language setting at source.
dest_lang_setting (STRING): Language setting at destination.

wafl.scan events

wafl.scan.abort.nospace

Severity

ERROR

Description

This message occurs when the system is aborting the WORM clear scan because there is no space available in the volume.

Corrective Action

For non-ASA r2 platforms, create space by increasing the volume or aggregate sizes, or by deleting data or by deleting Snapshot copies. To increase a volume's size, use the "volume size" command. To delete a

volume's Snapshot copies, use the "volume snapshot delete" command. To increase an aggregate's size, add disks by using the "storage aggregate add-disks" command. Aggregate Snapshot copies are deleted automatically when the aggregate is full. For ASA r2 platforms, create space in the volume or aggregate. To create space in an aggregate, add more disks to the cluster. To create space in a volume, delete data or delete Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

Aborting WAFL %s scanner on volume %s because there is no space available in the volume.

Parameters

type (STRING): String to indicate the scanner that is aborted.
vol (STRING): Volume name.

wafl.scan.autocommit.disable

Severity

INFORMATIONAL

Description

This event is issued to inform the user that the system is aborting the autocommit scanner on a Snaplock volume.

Corrective Action

(None).

Syslog Message

Aborting autocommit scan on %s %s%s%s%s.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner of the snaplock volume where the autocommit scanner was aborted.
vol (STRING): The name of the snaplock volume where the autocommit scanner was aborted.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the snaplock volume where the autocommit scanner was aborted in cases where volume name itself is insufficient.

wafl.scan.blkreclaim.activeDelta

Severity

ERROR

Description

This event indicates a flexible mirror volume is unable to relinquish free blocks to its containing aggregate. As a result, the containing aggregate may run out of space if this state persists beyond the following incremental transfer.

Corrective Action

Monitor the state after the next incremental update for this volume and the space available in its containing aggregate

Syslog Message

Flexible volume '%s%s' cannot release free blocks to its containing aggregate '%s'.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
aggr (STRING): The aggregate name

wafl.scan.blockcheck.done

Severity

NOTICE

Description

This event is issued when the 'aggr block_check' tool finishes scanning an aggregate.

Corrective Action

(None).

Syslog Message

Writing WAFL aggr block_check log %s

Parameters

filename (STRING): The name of the log file.

wafl.scan.br.realloc.done

Severity

INFORMATIONAL

Description

This message occurs when a block reallocation scan is complete on an aggregate. The block reallocation scan improves WAFL® write efficiency by reducing free space fragmentation. It runs automatically when aggregate reallocation is scheduled using the 'reallocate -A' command.

Corrective Action

(None).

Syslog Message

Block reallocation scan on aggregate %s is complete.

Parameters

aggr (STRING): Aggregate name.

wafl.scan.br.redir.abort

Severity

INFORMATIONAL

Description

This message occurs when a redirect scan is aborted on a volume or aggregate. The redirect scan improves performance following block reallocation by updating metadata that was changed during reallocation. It runs automatically when aggregate reallocation is scheduled using the 'reallocate -A' command.

Corrective Action

(None).

Syslog Message

Redirect scan on %s %s%s%s%s has been aborted.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume or aggregate owner.
vol (STRING): Volume or aggregate name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.scan.br.redir.done

Severity

INFORMATIONAL

Description

This message occurs when a redirect scan is complete on a volume or aggregate. The redirect scan improves performance following block reallocation by updating metadata that was changed during reallocation. It runs automatically when aggregate reallocation is scheduled using the 'reallocate -A' command.

Corrective Action

(None).

Syslog Message

Redirect scan on %s %s%s%s%s is complete. The scanner took %ld ms.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume or aggregate owner.
vol (STRING): Volume or aggregate name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
run_time (LONGINT): Total run time of the scanner.

wafl.scan.br.redir.noStart

Severity

NOTICE

Description

This message occurs when a redirect scan cannot be started on a volume or aggregate. The redirect scan improves performance following block reallocation by updating metadata that was changed during

reallocation. It runs automatically when aggregate reallocation is scheduled using the 'reallocate -A' command.

Corrective Action

(None).

Syslog Message

Redirect scan on %s %s%s%s%s could not be started.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume or aggregate owner.
vol (STRING): Volume or aggregate name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.scan.cantStart

Severity

INFORMATIONAL

Description

The message occurs when the scan could not start because the maximum number of scans of the specified type are already running.

Corrective Action

The maximum number of scan operations has been reached. Please wait until the current scan operations have completed before trying any new ones.

Syslog Message

Cannot start scan %s on %s %s%s%s%s because maximum number of scans (%d) already running.

Parameters

scantype (STRING): The type of scan
type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
max (INT): The maximum number of scans that can run

wafl.scan.ckpt.init.failed

Severity

NOTICE

Description

This message occurs when the creation of Scan Checkpoint Metafile fails.

Corrective Action

(None).

Syslog Message

On %s %s%s%s%s, FSID 0x%x, Creation of Scan Checkpoint Metafile failed with error %d.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
fsid (INT): File system identifier of the volume.
error (INT): Error number.

wafl.scan.ckpt.remove.failed

Severity

NOTICE

Description

This message occurs when the removal of Scan Checkpoint in Metafile fails.

Corrective Action

(None).

Syslog Message

On %s %s%s%s%s, FSID 0x%x, Removal of Scan Checkpoint failed with error %d.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
fsid (INT): File system identifier of the volume.
error (INT): Error number.

wafl.scan.clone.split.abort

Severity

INFORMATIONAL

Description

This event is issued to indicate that an operation to split a clone flexible volume from its parent volume was aborted.

Corrective Action

(None).

Syslog Message

%s %s%s%s, clone split operation stopped.

Parameters

> **type** (STRING): The type of object (volume/aggregate)
> **owner** (STRING): The volume owner
> **vol** (STRING): The volume name
> **app** (STRING): Application UUID.
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.clone.split.cantLock

Severity

> ERROR

Description

> This event is issued when the system cannot create a volume reference to complete a clone split operation. Check the type to determine if the reference is for the volume or for its enclosing aggregate.

Corrective Action

> Determine why the volume reference failed, and retry the operation if necessary.

Syslog Message

> Unable to lock %s %s%s to complete clone split operation.

Parameters

> **type** (STRING): The type of object (volume/aggregate)
> **vol** (STRING): The volume name
> **app** (STRING): Application UUID.
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.clone.split.complete

Severity

> INFORMATIONAL

Description

> This event is issued to indicate that an operation to split a clone flexible volume from its parent volume completed successfully.

Corrective Action

> (None).

Syslog Message

> Clone split complete for %s %s%s%s

Parameters

> **type** (STRING): The type of object (volume/aggregate)
> **owner** (STRING): The volume owner
> **vol** (STRING): The volume name
> **app** (STRING): Application UUID.
> **volident** (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.clone.split.fail

Severity

INFORMATIONAL

Description

This event is issued to indicate that an operation to split a clone flexible volume from its parent volume has failed.

Corrective Action

(None).

Syslog Message

%s %s%s%s, clone split operation failed.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.css.undo.complete

Severity

INFORMATIONAL

Description

This event is issued to indicate that an operation to undo sharing-by-split in a flexible volume has completed.

Corrective Action

(None).

Syslog Message

Clone sharing-by-split undo complete for %s %s%s

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.deswizzle.aborted

Severity

ERROR

Description

This message occurs when the deswizzler scanner encounters an error and aborts.

Corrective Action

Correct the issue based on the reason the deswizzler scanner aborted.

Syslog Message

The deswizzler scanner running on volume %s (snapshot ID %d) was aborted. Reason: "%s".

Parameters

vol (STRING): Volume that was being deswizzled.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
reason (STRING): Reason the deswizzler scanner aborted.

wafl.scan.deswizzle.check.referenced

Severity

INFORMATIONAL

Description

This event is triggered when deswizzling a block already pointed to by pvbn in an older snapshot. If snap1 is not 0 (i.e. not the active fs), there is a strong possibility this may lead to a corruption.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vol (STRING): The volume name
snap1 (INT): The snapshot of the block being deswizzled.
snap2 (INT): The next older snapshot.
cp1 (INT): CP count of snap1.
cp2 (INT): CP count of snap2.
ino_type (STRING): The inode type
inum (INT): Inode containing the block being deswizzled.
fbn (LONGINT): FBN of the block in the inode.
level (INT): Level of the block.
vvbn (LONGINT): VVBN of the block in snap1.
pvbn1 (LONGINT): PVBN of the block in snap1.
pvbn2 (LONGINT): PVBN of the block in snap2.
parent (LONGINT): VVBN of the parent block in snap2.

wafl.scan.deswizzle.exception

Severity

ERROR

Description

This message occurs when the deswizzler scanner encounters an exception.

Corrective Action

(None).

The deswizzler scanner running on volume %s (snapshot ID %d) was excepted. Error: "%d".

Parameters

vol (STRING): Volume that was being deswizzled.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
error (INT): Message status.

wafl.scan.deswizzle.failed

Severity

ERROR

Description

This message occurs when the deswizzler scanner has encounters a volume inconsistency and stops running.

Corrective Action

An inconsistency was found in the specified snapshot. Delete the snapshot. To ensure that the active file system is intact, you might want to run wafliron.

Syslog Message

The deswizzler scanner on flexvol %s, snapshot %s (ID %d) encountered a volume inconsistency and stopped running on the volume.

Parameters

vol (STRING): Volume that was being deswizzled.
snapname (STRING): Inconsistent snapshot name.
snapid (INT): Inconsistent snapshot snapid.

wafl.scan.done

Severity

NOTICE

Description

This message occurs when a WAFL® scan is completed.

Corrective Action

(None).

Syslog Message

Completed %s on %s %s%s%s%s.

Parameters

scantype (STRING): Type of scan.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.scan.filecheck.done

Severity

NOTICE

Description

This event is issued when the 'file check' diagnostic tool finishes scanning a file for corrupt data blocks.

Corrective Action

(None).

Syslog Message

Writing WAFL filecheck log %s

Parameters

filename (STRING): The name of the log file.

wafl.scan.i2p.cantAbort

Severity

INFORMATIONAL

Description

This message occurs during an attempt to abort the I2P scan by using the "wafl scan abort" command while running clustered Data ONTAP®. The I2P scan cannot be interrupted.

Corrective Action

(None).

Syslog Message

You cannot abort an I2P scan on a cluster volume.

Parameters

(None).

wafl.scan.iron.done

Severity

INFORMATIONAL

Description

This message informs the user that the system has completed a wafliron scan.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s, wafliron %s.

Parameters

type (STRING): Type of object (volume/aggregate).

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
status (STRING): Status string.

wafl.scan.iron.snapshot

Severity

INFORMATIONAL

Description

This message informs the user that the system has started wafliron scan on the snapshot.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s, wafliron started on snapshot %d.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
snapid (INT): The snapshot Identifier.

wafl.scan.iv.metatype.done

Severity

INFORMATIONAL

Description

This message occurs when the system completes a WAFL_FLAG_IV_METATYPE inode flag scan on the Infinite Volume namespace constituent.

Corrective Action

(None).

Syslog Message

The WAFL_FLAG_IV_METATYPE inode flag scanner has completed the scan on %s %s%s%s%s. The scanner scanned %d inodes, tagged %d inodes with the inode flag, and took %ld msecs to complete the scan.

Parameters

type (STRING): Type of object (volume).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
inodes_visited (INT): Total number of inodes visited by the scanner.

inodes_tagged (INT): Total number of inodes tagged with the WAFL_FLAG_IV_METATYPE inode flag by the scanner.
run_time (LONGINT): Total run time of the scanner in milliseconds.

wafl.scan.iv.metatype.dud

Severity

ERROR

Description

This message occurs when the system tries and fails to start the WAFL_FLAG_IV_METATYPE inode flag scan on the Infinite Volume namespace constituent. This might cause errors in file operations over NFS/CIFS in the Infinite Volume until the scanner is restarted and the scan is completed.

Corrective Action

The scanner will restart automatically in cases where the failure to start occurs due to a storage failover event, an in-progress node revert operation, or a node reboot. In other cases, contact NetApp technical support for assistance.

Syslog Message

Failed to launch the WAFL_FLAG_IV_METATYPE inode flag scanner on %s %s%s%s%s. The error code returned was %d (%s).

Parameters

type (STRING): Type of object (volume).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
err_code (INT): Numerical error code indicating the reason the scan could not be launched.
err_string (STRING): String interpreting the error code.

wafl.scan.iv.metatype.start

Severity

INFORMATIONAL

Description

This message occurs when the system starts a WAFL_FLAG_IV_METATYPE inode flag scan on the Infinite Volume namespace constituent.

Corrective Action

(None).

Syslog Message

The WAFL_FLAG_IV_METATYPE inode flag scanner has started running on %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.

volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.scan.l1.uncompact.done

Severity
NOTICE

Description
This message occurs when the operation to uncompact indirect blocks in a FlexVol® volume is complete.

Corrective Action
(None).

Syslog Message
L1 uncompact operation complete for %s (UUID: %s). %d indirect blocks were uncompacted.

Parameters
name (STRING): Volume name.
vol_uuid (STRING): Volume UUID.
count (INT): Number of indirect blocks being uncompacted.

wafl.scan.l1.uncompact.nobt

Severity
ERROR

Description
This message occurs when an indirect block uncompact operation is attempted on a volume before block type metadata initialization is complete.

Corrective Action
Check whether the block type scan is still running on the volume. Try the indirect block uncompact operation on the volume after the block type scan is complete.

Syslog Message
Indirect block uncompact scan can't be started on volume %s (UUID: %s) because block type initialization is not complete on the volume. Try again after block type scan is complete on the volume.

Parameters
name (STRING): Volume name.
vol_uuid (STRING): Volume UUID.

wafl.scan.l1.uncompact.nospc

Severity
ERROR

Description
This message occurs when there is not enough free space to uncompact the indirect blocks during the volume uncompact operation.

Corrective Action

Create space by increasing the volume size, or by deleting data or deleting snapshots. To increase a volume's size, use the "volume size" command. To delete a volume's snapshots, use the "volume snapshot delete" command.

Syslog Message

Indirect block uncompact scan for volume %s (UUID: %s) stopped because of insufficient free space.

Parameters

name (STRING): Volume name.
vol_uuid (STRING): Volume UUID.

wafl.scan.layout.advise

Severity

INFORMATIONAL

Description

This event is issued to advise the operator of optimal settings for their layout ratio.

Corrective Action

(None).

Syslog Message

WAFL layout ratio for %s %s%s%s%s is %d.%02d. A ratio of 1 is optimal. Based on your free space, %d.%02d is expected.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
ratio1 (INT): The ratio integer
ratio2 (INT): The ratio fraction of 100
eratio1 (INT): The expected ratio integer
eratio2 (INT): The expected ratio fraction of 100

wafl.scan.layout.advise.ino

Severity

INFORMATIONAL

Description

This event is issued to advise the operator of optimal settings for their layout ratio.

Corrective Action

(None).

Syslog Message

WAFL layout ratio for %s %s%s%s%s, %s inode %u is %d.%02d. A ratio of 1 is optimal. Based on your free space, %d.%02d is expected.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
inotype (STRING): The inode space (public or private)
ino (INT): The inode value
ratio1 (INT): The ratio integer
ratio2 (INT): The ratio fraction of 100
eratio1 (INT): The expected ratio integer
eratio2 (INT): The expected ration fraction of 100

wafl.scan.layout.cantWrite

Severity

ERROR

Description

This message occurs when the system cannot write out the WAFL®scan layout log.

Corrective Action

The most likely cause of a failure in writing the file is lack of space on the specified volume. Use the 'df' command to check available space. If the volume is full, free some space on the volume, and then restart the command.

Syslog Message

Cannot write WAFL scan layout log %s.

Parameters

filename (STRING): Name of the log file.

wafl.scan.layout.write

Severity

NOTICE

Description

This event is issued when the system initiate writing of the scan layout log.

Corrective Action

(None).

Syslog Message

Writing WAFL layout log %s

Parameters

filename (STRING): The name of the log file

wafl.scan.log.cantWrite

Severity

NOTICE

Description

This message occurs when the system cannot write out the scan report log.

Corrective Action

If the error is due to lack of space, add more space or free space in the volume. If the problem persists, contact NetApp technical support.

Syslog Message

Cannot write WAFL vbntoino log %s: %d (%s).

Parameters

filename (STRING): Name of the log file.
err_code (INT): A numerical error code indicating the reason why the log was not written.
err_string (STRING): A string interpreting the error code.

wafl.scan.lost.obj.recovery

Severity

NOTICE

Description

This message occurs after a lost object recovery scanner has been completed or aborted.

Corrective Action

None.

Syslog Message

Lost object recovery scanner on volume "%s%s%s" is %s. (num_lost=%llu, num_inserted=%llu, num_deleted=%llu, num_skipped=%llu, num_objs_in_namespace=%llu)

Parameters

volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
state (STRING): State of the scan, either aborted or completed
num_lost (LONGINT): Number of objects found that were not in the namespace.
num_inserted (LONGINT): Number of objects fixed by adding them back into the namespace.
num_deleted (LONGINT): Number of objects fixed by deletion.
num_skipped (LONGINT): Number of inodes skipped during scanning due to some error.
num_objs_in_namespace (LONGINT): Number of objects that were found to exist already in the namespace.

wafl.scan.ownblocks.done

Severity

INFORMATIONAL

Description

This message occurs when a scan operation to check owned blocks is complete.

Corrective Action

(None).

Syslog Message

Completed %s on %s %s%s%s%s. The scanner took %ld ms.

Parameters

op (STRING): Name of the operation.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
run_time (LONGINT): Total run time of the scanner.

wafl.scan.quota.init.cantAbort

Severity

INFORMATIONAL

Description

This message occurs during an attempt to abort the quota initialization scan by using the "wafl scan abort" command. The quota initialization scan cannot be interrupted.

Corrective Action

Wait for the quota initialization to complete or use the "quota off" command.

Syslog Message

User cannot abort quota initialization scan. Please use 'quota off' command.

Parameters

(None).

wafl.scan.realloc.oldsnaps

Severity

ERROR

Description

This message occurs when a block reallocation scanner cannot move blocks trapped in aggregate snapshots, because the snapshots are older than the value in 'wafl_blkr_max_snap_age' flag (default is 360 seconds). You can display the value of this flag by using 'printflag wafl_blkr_max_snap_age'.

Corrective Action

Delete all aggregate snapshots or snapshot schedules before running a block reallocation scan. In the case of RaidSyncmirror aggregates, ensure that the resyncsnaptime option has a value that is less than in the 'age' parameter.

Syslog Message

Block reallocation scan on aggregate %s found snapshots older than %d seconds.

Parameters

aggr (STRING): Aggregate name.
age (INT): Maximum allowed age of aggregate snapshots, (in seconds), for block reallocation scan.

wafl.scan.reallocDisallowed

Severity

ERROR

Description

This event is issued when an attempt is made to reallocate a file or LUN that cannot be reallocated. Examples of such files/LUNs include file in snapshots, or Qtree Snapmirror destinations.

Corrective Action

File/LUN reallocation should be specified on files/LUNs in the active filesystem that are not part of a QSM destination.

Syslog Message

Reallocation disallowed on %s inode %d in volume %s%s: readonly or snapshot.

Parameters

inotype (STRING): The inode space (public or private)
inode (INT): The inode that could not be reallocated.
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.relocation.nocontiguousFree

Severity

ERROR

Description

This event is issued to indicate there is not enough contiguous free space to rewrite the blocks during file or volume reallocation.

Corrective Action

Free space in the volume, or increase the size of the aggregate, then retry the operation.

Syslog Message

Reallocate scan for volume %s%s has stopped because there is insufficient contiguous free space.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.relocation.nospaceFree

Severity

ERROR

Description

This event is issued to indicate there is not enough free space to rewrite the blocks during file or volume reallocation.

Corrective Action

Free space in the volume, or increase the size of a flexible volume, then retry the operation.

Syslog Message

Reallocate scan for volume %s%s has stopped because there is insufficient free space.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.relocation.nospaceSnap

Severity

ERROR

Description

This event is issued to indicate there is not enough snapshot free space to rewrite the blocks during file or volume reallocation.

Corrective Action

Remove snapshots in the volume, or increase the size of a flexible volume, then retry the operation.

Syslog Message

Reallocate scan for volume %s%s has stopped because there is insufficient snapshot free space.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.scan.snap.vbnOutOfRange

Severity

ERROR

Description

This messges occurs when scanners find an out-of-range block number in the snapshot.

Corrective Action

Delete the specified snapshot.

Syslog Message

Out of range block number error detected at %s %s%s%s%s in snapshot %d, during block type scan. Delete the specified snapshot.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapId (INT): Identifier for the snapshot.

wafl.scan.split.inofile.cantAbort

Severity

INFORMATIONAL

Description

This message occurs during an attempt to abort the split inofile scan by using the "wafl scan abort" command. The split inofile scan cannot be interrupted.

Corrective Action

(None).

Syslog Message

User cannot abort the split inofile scan.

Parameters

(None).

wafl.scan.typebits.diffFail

Severity

ALERT

Description

This message occurs when the type bit scan encounters an unexpected error from the snapdiff APIs. This can imply that prev_snapid snapshot might be corrupt.

Corrective Action

Contact NetApp technical support for corrective steps.

Syslog Message

Aborting the type bit scan due to error %d on volume %s while running a diff operation on inode %u of %s space between snapshot ID %u and snapshot ID %u after fbn %llu.

Parameters

error (INT): Error number.
volname (STRING): Volume name.
inum (INT): File ID under scan.
ino_type (STRING): Inode type.
snapId (INT): Identifier for the snapshot under scan.

prev_snapId (INT): Identifier for the reference snapshot.
start_fbn (LONGINT): Starting file block number (fbn) of the diff operation.
vendor (STRING): Name of the vendor.

wafl.scan.typeBitsMismatch

Severity
NOTICE

Description
This messages occurs when scanners find a type bits mismatch for a block number. This might indicate a file system inconsistency in a file system or snapshot.

Corrective Action
(Call support).

Syslog Message
Type bits mismatch found at %s %s%s%s%s in snapshot %d, vbn %llu, during block type scan. On-disk type bits %d, expected type bits %d.

Parameters
type (STRING): Type of object (volume or aggregate).
owner (STRING): Node that owns the object.
vol (STRING): Name of the object.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the object in cases where the object name itself is insufficient.
snapId (INT): Identifier for the snapshot.
vbn (LONGINT): Block number of the block within the volume.
diskbits (INT): On-disk type bits of the block.
expectedbits (INT): Expected type bits of the block.

wafl.scan.uncompact.aborted

Severity
ERROR

Description
This message occurs when the uncompaction scanner is aborted.

Corrective Action
(None).

Syslog Message
%s scanner aborted on %s %s%s%s%s with error: %s. %s was tried on %ld blocks before failure.

Parameters
opname (STRING): Opname for the scanner.
voltype (STRING): Volume type on which scanner was run.
aggr_owner (STRING): Owner of the volume.
aggr_name (STRING): Volume name.
app (STRING): Application UUID.
uuid (STRING): Volume uuid.

abort_reason (STRING): Reason for stoppping scan.
opname1 (STRING): Opname for the scanner.
val (LONGINT): Number of vbns acted on.

wafl.scan.vbn.outOfRange

Severity

NOTICE

Description

This message occurs when scanners find an out-of-range block number in the active file system.

Corrective Action

(None).

Syslog Message

Out-of-range block number error detected at %s %s%s%s%s, during block type scan.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.scan.wafliron.cantAbort

Severity

INFORMATIONAL

Description

This message occurs during an attempt to abort the wafliron scan by using the "wafl scan abort" command. The wafliron scan cannot be interrupted.

Corrective Action

Wait for the wafliron scan to finish or use "aggr wafliron stop" to stop the scan.

Syslog Message

User cannot abort wafliron scan. Please use 'vol wafliron stop' command.

Parameters

(None).

wafl.seclabel events

wafl.seclabel.syncsm.mutex

Severity

NOTICE

Description

This message occurs when the mutual exclusion has failed between the SnapMirror Synchronous and NFS v4.2 Security Labels features. This happens when an existing volume participating in a SnapMirror relationship receives an NFS "open", "create", or "setattr" operation carrying a security label. The system will not let a security label operation continue on a volume that participates in a SnapMirror Synchronous relationship, so the system administrator must either stop mirroring the volume or drop the security label operation completely.

Corrective Action

(None).

Syslog Message

An incompatible NFS v4.2 security label operation was received on a file in volume "%s" having a SnapMirror Synchronous relationship. To allow NFS operations carrying security label on the volume, the mirroring must be stopped first: FSID "%d" SNAPID "%d" FILEID "%llu": "%s"

Parameters

volname (STRING): Volume name.
fsid (INT): File System ID (FSID) of the volume.
snapid (INT): Snapshot ID.
fileid (LONGINT): File ID.
error_msg (STRING): Detailed error message to provide context while debugging the issue. The relevant input/output parameters of the message are also included to aid in debugging.

wafl.sfsr events

wafl.sfsr.abort.ino

Severity

NOTICE

Description

This event is issued when the system is forced to abort a file restore.

Corrective Action

(None).

Syslog Message

Single-file snaprestore of inode %u (snapid %d, %s %s%s%s%s) to inode %u prematurely halted.

Parameters

srcIno (INT): The source inode number
snapId (INT): The snapshot identifier
type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
dstIno (INT): The target inode number

wafl.sfsr.abort.inoDeleted

Severity

NOTICE

Description

This event is issued when the system is forced to abort a file restore. The inode was deleted.

Corrective Action

(None).

Syslog Message

Single-file snaprestore of inode %u (snapid %d, %s %s%s%s%s) to inode %u aborted. File was deleted.

Parameters

srcIno (INT): The source inode number
snapId (INT): The snapshot identifier
type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
dstIno (INT): The target inode number

wafl.sfsr.done

Severity

INFORMATIONAL

Description

This message occurs when a file restore operation has completed.

Corrective Action

(None).

Syslog Message

Single-file snaprestore of inode %u (snapid %d, %s %s%s%s%s) to inode %u has completed.

Parameters

srcIno (INT): Source inode number.
snapId (INT): Snapshot identifier.
type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
dstIno (INT): Target inode number.

wafl.sfsr.lun.error

Severity

ERROR

Description

This message occurs when the system attempts to restore a file onto a LUN. This is not a supported action; files cannot be restored onto a LUN.

Corrective Action

No corrective action is possible; files cannot be restored onto a LUN.

Syslog Message

Attempted to restore a file onto a LUN, but files cannot be restored onto a LUN. (vol='%s', volident='%s', snapname='%s', filename='%s')

Parameters

vol (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapname (STRING): Name of the snapshot that the file is being restored from.
filename (STRING): Name of the file that cannot be restored onto a LUN.

wafl.sfsr.lun.name.error

Severity

ERROR

Description

This event is issued when a LUN is being restored to a new location and the path to the new location contains invalid characters. The valid characters for the last component in the lun path are A-Z, a-z, 0-9, '-', '.', '_', '{' and '}'.

Corrective Action

Make sure that the last component of the path to the new location contains characters from A-Z, a-z, 0-9, '-', '.', '_', '{' and '}'.

Syslog Message

Can't restore LUN due to invalid restore path. The last component of the restore path can only contain characters from A-Z, a-z, 0-9, '-', '.', '_', '{' and '}'.

Parameters

(None).

wafl.sfsr.lun.restore.error

Severity

ERROR

Description

This message occurs when the system attempts to restore a LUN to something other than qtree root. This is not a supported action; LUNs can only be restored into qtree roots.

Corrective Action

No corrective action is possible; LUNs can only be restored into qtree roots.

Syslog Message

Attempted to restore a LUN to something other than a qtree root, but LUNs can only be restored into qtree roots. (vol='%s', volident='%s', snapname='%s', filename='%s')

Parameters

vol (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
snapname (STRING): Name of the snapshot that the LUN is being restored from.
filename (STRING): Name of the file that the LUN is being restored from.

wafl.sfsr.sr.disabled

Severity

ERROR

Description

This event is generated when a single-file snap restore (sfsr) operation on a file with a space reservation fails because there is not enough space on the volume to restore the file with its space reservation. If there was room for the file without a space reservation, then the file was restored with its space reservation disabled.

Corrective Action

If this event happened because the single-file snaprestore (sfsr) failed then space on the volume must be freed and the sfsr redone. If the sfsr was otherwise successful then space on the volume must be freed and reservations re-enabled by using "file reservation file-path enable".

Syslog Message

Single-file snaprestore of inode %u on %s %s%s%s) did not restore space reservations due to lack of disk space.

Parameters

srcIno (INT): The source inode number
type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.shutdown events

wafl.shutdown.notClean

Severity

NOTICE

Description

This message occurs during shutdown, to indicate that a volume has not been marked clean. By itself, this is not necessarily a problem. When this event occurs in conjunction with WAFL inconsistency panics or

higher-severity EMS events, this message can indicate a potential source of the inconsistencies.

Corrective Action

No immediate action is required. If this message occurs in conjunction with WAFL inconsistency panics or other EMS messages, contact NetApp technical support.

Syslog Message

%s %s%s%s%s not marked clean (volume state is %s).

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
state (STRING): State of the volume.

wafl.sidl events

wafl.sidl.blkincons.recovery

Severity

NOTICE

Description

This message occurs when a volume or aggregate with single instance data logging enabled encounters a problem in a metafile required for the functioning of the single instance data logging feature. The system will attempt automatic recovery within the next couple of Consistency Points (CPs). During the period of recovery, write performance could be lower than usual.

Corrective Action

(None).

Syslog Message

%s:%s encountered a problem in a metafile (sidl). The system will automatically repair the problem.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
object_name (STRING): Name of the object.
fileid (INT): File identifier of the metafile.
l0_blk_cnt (LONGINT): Number of L0 blocks present.
exp_blk_cnt (LONGINT): Number of L0 blocks expected.
cpcount (INT): CP that performs automatic recovery.

wafl.sidl.l0incons.recovery

Severity

NOTICE

Description

This message occurs when a volume or aggregate with single instance data logging enabled encounters a

problem in a metafile required for the functioning of the single instance data logging feature. The system will attempt automatic recovery within the next couple of Consistency Points (CPs). During the period of recovery, write performance could be lower than usual.

Corrective Action

(None).

Syslog Message

%s:%s encountered a problem in a metafile (sidl). The system will automatically repair the problem.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
object_name (STRING): Name of the object.
fbn (LONGINT): File block number (fbn) where the problem was encountered.
fileid (INT): File identifier of the metafile.
vbn (LONGINT): Value of the volume block number (vbn) that had a problem.
where (STRING): The module that generated the event (write or refill).
cpcount (INT): CP that performs automatic recovery.

wafl.sidl.space.disable

Severity

NOTICE

Description

This message occurs when a volume or aggregate disables the single instance data logging feature because the volume or aggregate is too close to full. During the period when single instance data logging is disabled, write performance could be lower than usual.

Corrective Action

Decrease the space utilization in the volume or aggregate either by deleting data or by growing the volume or aggregate.

Syslog Message

%s:%s has disabled the single instance data logging feature. Write performance could be lower than usual.

Parameters

object_type (STRING): Identifier for the type of object to which this event applies (aggregate or volume).
object_name (STRING): Name of the object.
cpcount (INT): Consistency Point (CP) at which the event is generated.

wafl.sis events

wafl.sis.clone.autodelete.file

Severity

NOTICE

Description

This message occurs when a file clone is autodeleted

Corrective Action

(None).

Syslog Message

'%s' is sent for auto deletion.

Parameters

path (STRING): File path.

wafl.sis.clone.autodelete.threshold

Severity

NOTICE

Description

This message occurs when file clone create operation fails because volume crossed autodelete threshold.

Corrective Action

Increase the space available to the volume by either adding disks or by freeing space in the volume to allow the cloning operation to continue.

Syslog Message

File clone creation cannot be completed because volume crossed autodelete threshold.

Parameters

name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.

wafl.sis.clone.backup.file.cleanup.failed

Severity

ERROR

Description

This message occurs when clone create gets an error while cleaning up the backup file of the pre-existing clone.

Corrective Action

A backup of the pre-existing clone file is saved at the backup file location. Its cleanup needs manual intervention.

Syslog Message

File clone create for the source %s and clone %s returned error while cleaning up the backup file %s of the pre-existing clone with error: %d. Backup file should be deleted to reclaim space.

Parameters

src_filename (STRING): Source filename.
clone_filename (STRING): Clone filename.
backup_filename (STRING): Backup filename.
error (INT): Error returned from FlexClone® subsystem.

wafl.sis.clone.backup.file.restore.failed

Severity

ERROR

Description

This message occurs when clone create errors out while restoring the backup file to the pre-existing clone.

Corrective Action

Clone create failed after deleting the pre-existing clone. A backup of the pre-existing clone file is saved at the backup file location. It can be used to recover the pre-existing clone file.

Syslog Message

File clone create for the source %s and clone %s failed while restoring the backup file %s to the pre-existing clone with error: %d. Backup file can be moved to the pre-existing clone location for recovering the clone file.

Parameters

src_filename (STRING): Source filename.
clone_filename (STRING): Clone filename.
backup_filename (STRING): Backup filename.
error (INT): Error returned from FlexClone® subsystem.

wafl.sis.clone.create.failed

Severity

INFORMATIONAL

Description

This message occurs when attempts to create a file clone fail.

Corrective Action

(None).

Syslog Message

File clone create of clone file %s (fileid: %d) from source file %s (fileid: %d) in volume %s failed with error:%s at line %d with src_fsid %d, dst_fsid %d, src_snapid %d, dir_fileid %d, type %s, category %s.

Parameters

clone_filename (STRING): Clone filename.
dst_fileid (INT): File identifier for destination file.
src_filename (STRING): Source filename.
src_fileid (INT): File identifier for source file.
volname (STRING): Volume name.
error (STRING): Error returned from the FlexClone® subsystem.
line_number (INT): Line number where the error has occurred.
src_fsid (INT): File system identifier of source volume.
dst_fsid (INT): File system identifier of destination volume.
snapid (INT): Snapshot identifier.
dir_fileid (INT): File identifier for the directory.
type (STRING): Type of Cloning.
category (STRING): Clone create requestor information.

wafl.sis.clone.unlock.snapshot

Severity

NOTICE

Description

This event is issued when the volume options are set such that the autodelete destroy policy is allowed to destroy backing snapshots for sis clones. The snapshot autodelete destroy policy is used as a last resort to recover space in a thin provisioned aggregate. The disruptive effect of destroying sis clone backing snapshots should be understood when setting this policy.

Corrective Action

(None).

Syslog Message

Unlocked sis clone backing snapshot in volume %s. Clone files based on snapshot (%d, %d) might become inconsistent.

Parameters

name (STRING): The volume name
snapid (INT): Snapshot identifier.
cp_cnt (INT): The CP(Consistency Point) count. The (snapid, cp_count) pair uniquely identifies a snapshot.

wafl.slice events

wafl.slice.invalid.stream

Severity

NOTICE

Description

This message occurs when an invalid slice stream was not fixed by wafliron because the associated slice base file was not recognized at the time wafliron ran. Once this invalid stream file is removed, 'wafl slice_repair' can recreate and repair the stream file.

Corrective Action

A slice stream file in the slicevol is not valid. Please remove the file and rerun 'wafl slice_repair' to create a valid slice stream file - Use the (privilege :diag) "rm -x [stream_file_name] [slice_base_path]" command to remove the invalid slice stream file in the slicevol. Then use the (privilege:diag) "wafl slice_repair[slice_base_path] start" command to repair the stream file. If the problem persists, contact NetApp technical support.

Syslog Message

Invalid slice stream file: %s (fileid %d) in the slice base path %s in volume %s%s%s detected. Please run the following commands in the diag mode: %s to fix it.

Parameters

stream_name (STRING): The name of an invalid slice stream file.
stream_fileid (INT): The file ID of an invalid slice stream file.
base_path (STRING): The slice base file path that is being repaired.
vol (STRING): Name of the volume.

app (STRING): Application UUID.
volident (STRING): Vserver's Universal Unique Identifier (UUID).
repair_cmd (STRING): The repair command to restore the stream file to be valid.

wafl.sm events

wafl.sm.vvol.read.failed

Severity

ALERT

Description

This message occurs when SnapMirror® fails to read a block from the container file of a FlexVol® SnapMirror source volume. This error typically means that there is some corruption in the FlexVol volume.

Corrective Action

Contact NetApp technical support for assistance.

Syslog Message

SnapMirror encountered an error while reading the block at VVBN %llu in volume '%s%s%s'.

Parameters

vvbn (LONGINT): Virtual volume block number (VVBN) on which the read failed.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume, if the volume name itself is insufficient.

wafl.snap events

wafl.snap.autoDel.policyChg

Severity

NOTICE

Description

This message occurs when the system detects a possible change in the autodelete or autosize policy of the volume. This can happen when a version of Data ONTAP® is loaded that might not support the reclaim policy currently set in the active filesystem.

Corrective Action

Unrecognized reclaim policy settings are cleared in the active file system. If you subsequently load a version of Data ONTAP® that recognizes the reclaim policy settings, you need to reestablish the policy settings using 'snap autodelete' or 'vol autosize' commands.

Syslog Message

Reclaim policy might have changed in %s %s%s%s%s. Check the 'snap autodelete' or 'vol autosize' command settings.

Parameters

type (STRING): Container type, either volume or aggregate.
owner (STRING): Volume owner.

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.snap.autoDelete

Severity

INFORMATIONAL

Description

This message occurs when the aggregate snapshot reserve is full and snapshots are being deleted to free space.

Corrective Action

If aggregate snapshots are being deleted too frequently or while they are still being used, then consider the following options: o Increase the snapshot reserve percentage for the aggregate. o Alter the aggregate snapshot schedule to create less frequent snapshots.

Syslog Message

Deleting snapshot '%s' in aggregate '%s' to free up space.

Parameters

name (STRING): Snapshot name.
aggr (STRING): Aggregate name.

wafl.snap.autoDelete.createStateSnap.fail

Severity

INFORMATIONAL

Description

This event indicates that after auto-deletion of all aggregate snapshots, we have failed to take a state snapshot.

Corrective Action

(None).

Syslog Message

Unable to create snapshot '%s' in aggregate '%s': %s

Parameters

name (STRING): The snapshot name
vol (STRING): The volume name
err (STRING): Reason why the operation failed.

wafl.snap.autoDelete.fail

Severity

NOTICE

Description

This event indicates that the automatic deletion of a snapshot in an aggregate has failed. An appliance may automatically delete an aggregate snapshot if the aggregate snap reserve fills.

Corrective Action

The appliance will automatically retry the snapshot deletion shortly after the failure occurs. If the deletion succeeds then no corrective action is necessary. If deletion repeatedly fails then the aggregate could potentially become full. To address this please contact customer support.

Syslog Message

Unable to delete snapshot '%s' in aggregate '%s' to recover space: %s

Parameters

name (STRING): The snapshot name
aggr (STRING): The aggregate name
err (STRING): The reason why the deletion failed.

wafl.snap.create

Severity

NOTICE

Description

This message occurs when a snapshot is created successfully.

Corrective Action

(None).

Syslog Message

Snapshot %s was created successfully for volume %s%s%s in %ld milliseconds.

Parameters

name (STRING): Snapshot name.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
time (LONGINT): Time taken to create the snapshot, in milliseconds.

wafl.snap.create.skip.reason

Severity

ERROR

Description

This message occurs when the creation of a snapshot is skipped.

Corrective Action

Address the issue identified by the "reason" parameter. For example, if the reason is "Volume is too full", increase the volume size or free up disk space on the target volume.

Syslog Message

%s %s %s: Skipping creation of %s snapshot (%s).

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier.
snapname (STRING): Name of the snapshot being created.
reason (STRING): Reason for skipping the snapshot.

wafl.snap.delete

Severity

INFORMATIONAL

Description

This message occurs when a snapshot is deleted.

Corrective Action

(None).

Syslog Message

Snapshot %s on %s %s%s%s%s %s was deleted by the Data ONTAP function %s. The unique ID for this snapshot is (%d, %d).

Parameters

snap_name (STRING): Name of the deleted snapshot.
type (STRING): Container type (volume or aggregate).
owner (STRING): Volume or aggregate owner.
vol (STRING): Volume or aggregate name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume or aggregate when the volume or aggregate name by itself is insufficient.
vendor (STRING): Vendor name.
caller_func (STRING): Function in Data ONTAP® that invokes the deletion process.
snapid (INT): Numerical ID of the snapshot. The (snapid, cp_count) pair uniquely identifies a snapshot.
cp_count (INT): The CP (consistency point) count. The (snapid, cp_count) pair uniquely identifies a snapshot.

wafl.snap.delete.32bit

Severity

INFORMATIONAL

Description

This message occurs when a snapshot on an aggregate or volume is deleted because it has an unsupported 32-bit or mixed format file system.

Corrective Action

(None).

Syslog Message

A snapshot on %s %s%s%s%s was deleted because it has an unsupported 32-bit or mixed format file system. The unique ID for this snapshot is (%d, %d).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
snapid (INT): Numerical ID of the snapshot. As a pair, the values of the "snapid" and "cp_count" parameters uniquely identify a snapshot.
cp_count (INT): CP (consistency point) count. As a pair, the values of the "snapid" and "cp_count" parameters uniquely identify a snapshot.

wafl.snap.delete.pending

Severity

INFORMATIONAL

Description

This message occurs when the deletion of a snapshot is pending.

Corrective Action

(None).

Syslog Message

Pending snapshot (ID %u) deletion in %s %s%s%s%s.

Parameters

snapid (INT): Snapshot ID.
type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.snap.deleteError

Severity

INFORMATIONAL

Description

This message occurs when attempts to delete a snapshot fail.

Corrective Action

(None).

Syslog Message

Unable to remove old snapshot "%s" on %s %s%s%s. Error: %s.

Parameters

name (STRING): Name of the snapshot.
type (STRING): Type of object (volume or aggregate).
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): UUID of the volume, to uniquely identify the volume when the volume name alone is insufficient.
err (STRING): Error description

wafl.snap.sched.notok

Severity

NOTICE

Description

This message occurs when the creation of a snapshot is skipped:

Corrective Action

(None).

Syslog Message

%s%s%s%s: %s

Parameters

message (STRING): Generic scheduled snapshot failure indication.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
reason (STRING): Specific reason for the snapshot failure.

wafl.snaplock events

wafl.snaplock.scan.complete

Severity

NOTICE

Description

This event indicates that the snaplock scan has completed.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s SnapLock scan determined upgraded volume expiry date: %s

Parameters

typestr_cap (STRING): wafl_Volume type, capitalized
owner (STRING): owner string (foreign, partner, et al)
vol_name (STRING): Volume name
app (STRING): Application UUID.

volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
timebuf (STRING): Text string describing expiration time/date.

wafl.snaprestore events

wafl.snaprestore.badVersion

Severity

ERROR

Description

This message occurs during a snapshot restore operation, when the system cannot recognize the version of Data ONTAP® from the snapshot it is reverting to. The snapshot is corrupt and cannot be used.

Corrective Action

Cancel the snapshot restore operation, if necessary, and restore to a different snapshot.

Syslog Message

Snapshot is from an unrecognizable version of Data ONTAP. (vol='%s', volident='%s')

Parameters

vol (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.snaprestore.cancel.invalid

Severity

NOTICE

Description

This message occurs during volume initialization when the system cancels a SnapRestore® process due to an invalid snapshot.

Corrective Action

Select a different snapshot and reattempt the restore operation.

Syslog Message

Snapshot is invalid; canceling pending "vol snaprestore" for %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.snaprestore.cancel.prevcp

Severity

INFORMATIONAL

Description

This message occurs during volume initialization from a previous consistency point (CP) when the system cancels a SnapRestore® process. This happens when booting to a previous CP.

Corrective Action

Retry the SnapRestore operation after the system completes bootup.

Syslog Message

Canceling pending "vol snaprestore" for %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.snaprestore.defer.prevcp

Severity

INFORMATIONAL

Description

This message occurs during a read-only boot to the previous consistency point (CP). In this case, the pending SnapRestore® process is deferred.

Corrective Action

(None).

Syslog Message

Readonly mode; deferring "vol snaprestore" for %s %s%s%s%s.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.snaprestore.revert

Severity

INFORMATIONAL

Description

This message occurs during volume initialization when the system reverts to a previous snapshot.

Corrective Action

(None).

Syslog Message

Reverting %s %s%s%s%s to a previous snapshot with snapid %d.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
snapId (INT): Identifier for the snapshot.

wafl.snaprestore.stale

Severity

ERROR

Description

This message occurs during a snapshot restore operation, when the system determines that the snapshot it is restoring from is stale. The snapshot is corrupt and cannot be used.

Corrective Action

Cancel the snapshot restore operation, if necessary, and restore from a different snapshot.

Syslog Message

Snapshot is stale. (vol='%s', volident='%s')

Parameters

vol (STRING): Volume name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.snapshot events

wafl.snapshot.badFilesize

Severity

NOTICE

Description

This event is issued when the system discover that a filesize is out of range in a snapshot.

Corrective Action

(None).

Syslog Message

File size out of range in snapshot.

Parameters

(None).

wafl.snapshot.badLevel

Severity

NOTICE

Description

This event is issued when there is an inconsistency in the metadata of an inode in a snapshot. This message is advisory only. The inconsistency will be corrected in memory only, and the data will be made available.

Corrective Action

No action is required; however, the message may repeat until the snapshot is deleted.

Syslog Message

Corrected bad level %d for buftree of %s fileid %d, snapid %d in %s %s%s%s%s

Parameters

level (INT): The level of the buftree of the file
ino_type (STRING): The inode type
fileid (INT): The file identifier
snapid (INT): The snapshot identifier
type (STRING): The type of object (volume/aggregate)
owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.snapshot.ecv.fail

Severity

ERROR

Description

This message occurs when the system attempts to create a snapshot on a mixed-version cluster. However, the effective version of the cluster is ONTAP® 9.3 or earlier, and the maximum number of snapshots supported by this effective version has already been reached.

Corrective Action

Upgrade all nodes in the cluster to ONTAP 9.4 or later.

Syslog Message

Snapshot create operation failed on volume %s%s%s. Maximum number of snapshots reached on a mixed-version cluster.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): ID of the volume.

wafl.snapshot_xlation_duplicate_entry events

wafl.snapshot_xlation_duplicate_entry

Severity

ALERT

Description

This message occurs when WAFL® determines that there are duplicate snapshot entries in the snapshot translation table. Access to this snapshot is disabled until the problem is resolved.

Corrective Action

The snapshot is inaccessible because the corresponding entry in the translation table has been cleared. Contact NetApp technical support resolve the problem.

Syslog Message

WAFL snapshot translation table: Duplicate entry for volume '%s%s%s' that maps physical snapshot '%d' to logical snapshot '%d'.

Parameters

owner (STRING): Owner of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
physical_snapid (INT): Physical snapshot index.
Logical_snapid (INT): Logical snapshot index.

wafl.snapshot_xlation_setupfailed events

wafl.snapshot_xlation_setupfailed

Severity

ERROR

Description

This message occurs when WAFL® cannot setup the snapshot translation table. Access to this snapshot is disabled until the problem is resolved.

Corrective Action

The snapshot is inaccessible, possibly due to a resource issue.Contact NetApp technical support.

Syslog Message

WAFL snapshot translation table: Cannot to add entry on volume '%s%s%s' that maps physical snapshot '%d' to logical snapshot '%d'

Parameters

owner (STRING): Owner of the volume.
app (STRING): Application UUID.
volident (STRING): Unique Identifier of the volume in cases where the volume name itself is insufficient.
physical_snapid (INT): Physical snapshot index.
Logical_snapid (INT): Logical snapshot index.

wafl.spacemgmnt events

wafl.spacemgmnt.policyChg

Severity

NOTICE

Description

This message occurs when autodelete/autosize policy of a volume is changed.

Corrective Action

(None).

Syslog Message

The space management policy for volume %s has changed: %s.

Parameters

vol (STRING): Volume name.
changes (STRING): A string of changes being made.

wafl.spacetax events

wafl.spacetax.disabled

Severity

ERROR

Description

This message occurs when the spacetax feature is disabled for all flexible volumes in the system because of the 'wafl-disable-spacetax?' boot option.

Corrective Action

Reboot with the 'wafl-disable-spacetax?' boot option removed.

Syslog Message

Spacetax disabled for all flexible volumes.

Parameters

(None).

wafl.sparse events

wafl.sparse.meta.rm

Severity

NOTICE

Description

This event is issued when a sparse config metafile can not be removed in recycling bin

Corrective Action

(None).

Syslog Message

Unable to remove sparse metafile %s in recycle bin: error %s

Parameters

path (STRING): The metadata filepath
err (STRING): The error message

wafl.spcmgmt events

wafl.spcmgmt.policyConflict

Severity

NOTICE

Description

This message occurs when a space management strategy or an autosize grow threshold for a volume is being configured and the autogrow or autodelete thresholds conflict with the space-mgmt-try-first policy. The conflict can arise when the autogrow threshold is less than the autodelete threshold and the space-mgmt-try-first policy is configured for "snap_delete". The conflict can also arise when the autogrow threshold is more than the autodelete threshold and space-mgmt-try-first is configured for "volume_grow".

Corrective Action

Consider changing either the space-mgmt-try-first policy with the command "volume modify -volume <volume_name> -space-mgmt-try-first <option>" or the autogrow threshold with the command "volume modify -volume <vol_name> -autosize-grow-threshold-percent <value>", and keep them in sync.

Syslog Message

While configuring "%s" for volume "%s", space_mgmt_try_first policy ("%s") is conflicted with the autogrow threshold (%d%%) and autodelete threshold (%d%%).

Parameters

command (STRING): Command being executed.
volume_name (STRING): Name of the volume.
space_mgmt_try_first (STRING): space-mgmt-try-first policy for volume_grow or snap_delete.
grow_threshold (INT): Used-space threshold, as a percentage, for the automatic growth of the volume.
delete_threshold (INT): Used-space threshold, as a percentage, for the auto-deletion of snapshots.

wafl.spcres events

wafl.spcres.not.changed

Severity

NOTICE

Description

This event indicates that the new space reservation guarantee was unabled to be obtained, so the old reservation type was kept unchanged.

Corrective Action

(None).

Syslog Message

Retaining volume reservation on %s%s (%s) because new reservation could not be guaranteed.

Parameters

vol_name (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
spcres_desc (STRING): Text string describing space reservation type.

wafl.spinhi events

wafl.spinhi.new.err.code

Severity

NOTICE

Description

This message occurs when a new spinnp error is being propagated to a blade that does not understand that error yet. Nothing bad should happen because the error will receive default error handling when received by that blade. This message is for debugging in case you need to know the original source and reason for the error.

Corrective Action

(None).

Syslog Message

Spinnp operation %s was executed on DSID(%08x), fileid %u, snapid %u, proto %s and returned spinnp error %d to blade UUID %s.'

Parameters

opname (STRING): Spinnp operation name.
dsid (LONGINT): The data set identifier.
fileid (INT): ID of the file specified by the spinnp operation.
snapid (INT): Snapshot identifier: (0) - active file system (non-zero) - refers to snapshot
proto (STRING): Protocol used on the operation.
spinerror (INT): Spinnp error number.
bladeuuid (STRING): Universally Unique Identifier (UUID) of the blade where this error will be returned.

wafl.split events

wafl.split.inofile.scan.complete

Severity

NOTICE

Description

This event indicates that the split inofile scan has completed.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s Split inofile scan completed.

Parameters

typestr_cap (STRING): wafl_Volume type, capitalized
owner (STRING): owner string (foreign, partner, et al)
vol_name (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.stream events

wafl.stream.check.complete

Severity

NOTICE

Description

This message occurs when the "wafl scan stream_check" command is completed successfully.

Corrective Action

(None).

Syslog Message

"wafl scan stream_check" command successfully completed on volume "%s:%s". The total number of invalid stream files detected is %u.

Parameters

volume (STRING): Volume name.
vserver_uuid (STRING): Universal Unique ID (UUID) of the volume's SVM.
total (INT): Total number of invalid stream files detected.

wafl.stream.check.invalid.file

Severity

ERROR

Description

This message occurs when the "wafl scan stream_check" command detects a stream file with the name "." or "..". Files with these names are not allowed. If you have files with these names, you might be unable to access these files.

Corrective Action

Manually delete the base file which in turn will also delete the invalid stream file.

Syslog Message

Detected invalid stream file associated with base file inode "%d" on volume "%s:%s".

Parameters

fileId (INT): The base file inode number that has a stream file with the name "." or "..".
volume (STRING): Volume name.
vserver_uuid (STRING): Universal Unique ID (UUID) of the volume's SVM.

wafl.stream.check.start

Severity

NOTICE

Description

This message occurs when the "wafl scan stream_check" command is started.

Corrective Action

(None).

Syslog Message

"wafl scan stream_check" command successfully started on volume "%s:%s".

Parameters

volume (STRING): Volume name.
vserver_uuid (STRING): Universal Unique ID (UUID) of the volume's SVM.

wafl.svo events

wafl.svo.checkFailed

Severity

NOTICE

Description

This event is generated if a write to a svo enabled volume fails to pass a check

Corrective Action

(None).

Syslog Message

SnapValidator: Validation error %s

v:%s vol:%s%s%s inode:%d length:%d Offset: %lld

Parameters

error (STRING): error that occurred when validating the write
version (STRING): string to describe version of oracle tests that were run
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
inode (INT): The inode number of the file which was being written
length (INT): The length of the invalid write
offset (LONGINT): The offset into the inode where the write sent. Note for Luns this will be to the main inode, and does not include space used by prefix streams.

wafl.svo.optionSet

Severity

INFORMATIONAL

Description

This event is generated when a SnapValidator option is set on a volume

Corrective Action

(None).

Syslog Message

SnapValidator option '%s' set to '%s' on volume '%s%s'

Parameters

opname (STRING): name of the option being set
opvalue (STRING): value of the option being set
vol (STRING): name of the volume the option is being set on
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.takeover events

wafl.takeover.nvram.missing

Severity

INFORMATIONAL

Description

This message occurs when the system does not find any WAFL® nvlog records to replay during takeover processing.

Corrective Action

(None).

Syslog Message

WAFL takeover: No WAFL nvlog records were found to replay.

Parameters

(None).

wafl.takeover.nvram.warn

Severity

ERROR

Description

This message occurs when NVRAM loss is detected during takeover. Some updates might have been lost, but takeover is proceeding.

Corrective Action

(Call support).

Syslog Message

WAFL takeover: Last few seconds of updates to partner might be lost.

Parameters

(None).

wafl.takeover.vol.mType.inv

Severity

ERROR

Description

This message occurs when WAFL® attempts to take over a mirror volume that does not have a valid mirror-type attribute. This situation might be a direct result of an upgrade to a version of Data ONTAP® that requires the mirror-type attribute or as a result of a corruption.

Corrective Action

This condition cannot be fixed by file system repair mechanisms such as wafliron. The data is not lost, but it is inaccessible to the administrator. To access the data, contact NetApp technical support. Alternatively, the administrator can destroy the mirror volume by using the 'volume delete -vserver vserver_name -volume vol_name' command.

Syslog Message

The mirror type associated with the mirror volume %s%s%s is invalid.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name by itself is insufficient.

wafl.takeover.vol.nomount

Severity

ERROR

Description

This message occurs during a takeover or switchover operation when the system discovers that a partner volume cannot be mounted because it is inconsistent.

Corrective Action

The volume is inconsistent. Run wafliron to clear this inconsistency, and then contact technical support.

Syslog Message

%s partner volume %s%s%s is not mounted because it is inconsistent.

Parameters

operation (STRING): Whether this message refers to takeover or switchover.
vol (STRING): Volume name.

app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.takeover.vol.offline

Severity

ERROR

Description

This message occurs during a takeover or switchover operation when the system discovers that a partner volume cannot be brought online because it is inconsistent. The volume is left unmounted.

Corrective Action

The volume is inconsistent and is left unmounted. Run wafliron to clear this inconsistency, and then contact technical support.

Syslog Message

%s partner volume %s%s%s cannot be brought online because it is inconsistent.

Parameters

operation (STRING): Whether this message refers to takeover or switchover.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identity when the volume name itself is insufficient.

wafl.takeover.vols.mounted

Severity

INFORMATIONAL

Description

This message occurs when the volumes are mounted during takeover.

Corrective Action

(None).

Syslog Message

(None).

Parameters

(None).

wafl.timer events

wafl.timer.disk.io.stalled

Severity

ERROR

Description

This message occurs when disk I/O is stalled, possibly during a disk firmware download operation. If automatic firmware update is enabled, the download operation restarts automatically.

Corrective Action

If disk firmware updates were in progress, verify that the update has automatically resumed by using the "storage download status" command. If the disk firmware updates have not resumed, restart the download by using the "storage download" command.

Syslog Message

All disk I/O stalled.

Parameters

(None).

wafl.trans events

wafl.trans.ssd.cache.disable

Severity

NOTICE

Description

This message occurs when the system transitions a hybrid aggregate from 7-Mode to clustered Data ONTAP. As part of transition, SSD caching is disabled until the transition is committed.

Corrective Action

No action is required. After the transition operation is committed, SSD caching is automatically reenabled.

Syslog Message

SSD caching on hybrid aggregate "%s" has been disabled because a transition operation is in the pre-commit phase.

Parameters

name (STRING): Aggregate name.

wafl.transition events

wafl.transition.cp.completed

Severity

NOTICE

Description

This message occurs at the completion of a WAFL® consistency point (CP) that occurs during a failover transition, such as takeover or giveback. This event logs the time spent and other important performance information.

Corrective Action

(None).

Transition CP with reason %s for %s volumes with a total of %s dirty buffers took %ums with longest CP phases being %s on aggregate %s.

Parameters

tag (STRING): Reason for the CP occurring and a status code.
vols (STRING): Counts of flexible volumes that participated in the CP.
dirty_bufs (STRING): Number of WAFL buffers that were in use when the CP began and the number required to complete the CP.
total_time (INT): Number of milliseconds that the CP ran for.
top_phases (STRING): Top time consuming phases of the CP.
aggrname (STRING): Name of the aggregate.

wafl.unable events

wafl.unable.markinconsistent

Severity

INFORMATIONAL

Description

This message occurs when the FlexVol® volume cannot be marked as inconsistent.

Corrective Action

(None).

Syslog Message

WAFL: Unable to mark volume %s inconsistent as %s.

Parameters

vvolname (STRING): Volume name.
reason (STRING): Reason for the inability to mark the volume inconsistent.

wafl.upgrade events

wafl.upgrade.useActiveInofile

Severity

NOTICE

Description

This event is issued during an upgrade where the system need to use the active filesystem inofile.

Corrective Action

(None).

Syslog Message

Using active filesystem inofile on upgrade from legacy %s %s%s%s%s.

Parameters

    type (STRING): The type of object (volume/aggregate)
    owner (STRING): The owner of the volume
    vol (STRING): The name of the volume
    app (STRING): Application UUID.
    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vol events

wafl.vol.access.denied

Severity

    ERROR

Description

    This message occurs when the system rejects client access to a volume.

Corrective Action

    You can avoid this event by unmounting the volume.

Syslog Message

    Access to volume '%s' was denied, reason='%s'.

Parameters

    vol (STRING): Volume name.
    reason (STRING): Reason that access was denied.

wafl.vol.add

Severity

    INFORMATIONAL

Description

    This message indicates that a new volume has been added to the system.

Corrective Action

    (None).

Syslog Message

    %s %s%s%s%s has been added to the system.

Parameters

    type (STRING): Type of object (volume/aggregate).
    owner (STRING): Volume owner.
    vol (STRING): Volume name.
    app (STRING): Application UUID.
    volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.vol.add.keyinfo.into.vldb

Severity

NOTICE

Description

This message occurs when encryption key-info is added into vldb table.

Corrective Action

(None).

Syslog Message

Key-info is added into vldb for volume %s (dsid %lu, aggr '%s') with index %d, key-id %s.

Parameters

vol (STRING): Volume name.
dsid (LONGINT): Unique identifier (DSID) of the volume.
aggr (STRING): Name of the containing aggregate.
key_idx (INT): Key index.
key_id (STRING): Key id.

wafl.vol.appdm.upgrade.nospc

Severity

ERROR

Description

This message occurs when ONTAP® software cannot increase the size of an AppDM volume by five percent during an upgrade to ONTAP 9.5.

Corrective Action

ONTAP has increased the snapshot reserve percentage on this AppDM volume from zero to five percent as part of the upgrade to ONTAP 9.5. To retain the same available free space on the volume, consider increasing the size of the volume by five percent by using the "vol modify -size" command. It might be necessary to increase the size of the aggregate first, using the "aggr add-disks" command.

Syslog Message

The file system on %s %s%s%s%s could not be grown 5%% larger as part of the upgrade to ONTAP 9.5.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier when the volume name alone is insufficient.

wafl.vol.autoSize.done

Severity

NOTICE

Description

This message occurs when an autosize for a volume is successful. This can happen when the "autosize grow" option is on and the volume reaches the grow threshold percentage.

Corrective Action

(None).

Syslog Message

Volume autosize: Automatic %s of volume '%s%s%s' by %s is complete.

Parameters

event_type (STRING): Type of autosize event.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
size (STRING): Human readable size.
object_uuid (STRING): Volume instance UUID of the resource object.

wafl.vol.autoSize.fail

Severity

NOTICE

Description

This message occurs when automatic sizing of a volume fails.

Corrective Action

Increase the maximum size of the volume while setting the autosize.

Syslog Message

Unable to grow volume '%s%s%s' to recover space: %s.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier the volume in cases where the volume name itself is insufficient.
err (STRING): Reason for the failure.
object_uuid (STRING): Volume instance UUID of the resource object.

wafl.vol.autoSize.shrink.cap

Severity

NOTICE

Description

As a volume grows, there can be an automatic increase in the number of files that it is allowed to contain, but that number is unchanged as the volume shrinks. This number of files puts a constraint on the minimum size of the volume when it is automatically shrunk. This message indicates that the automatic shrinking of a volume did not reach the configuration's minimum size because it is constrained by the number of files the volume is allowed to contain.

Corrective Action

Consider using the command "volume modify <volume-name> -files <new-files-value>" to decrease the number of files that the volume is allowed to contain. You can view the current value of the number of files by using the command "volume show <volume-name> -fields files".

Syslog Message

Volume Autosize: Volume '%s%s%s' could not be auto shrunk below %s to recover space.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
size (STRING): Human-readable minimum size to which the volume can be automatically shrunk.

wafl.vol.bgTruncate.full

Severity

ALERT

Description

This message occurs when a background truncation operation for large files stalls due to insufficient free space for allocating additional metadata on the volume.

Corrective Action

Manually delete snapshots or increase the volume's size for one-time space issues. For frequent space issues, consider changing autogrow or autodelete settings for the volume in question.

Syslog Message

Insufficient free space available on %s %s%s %s to complete background truncation operation.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Volume identifier.

wafl.vol.blks_used.done

Severity

INFORMATIONAL

Description

This message occurs when the 'blks used' calculation is complete.

Corrective Action

(None).

Syslog Message

(None).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
run_time (LONGINT): Total run time of the scanner.

wafl.vol.clearing.in.nvfailed.state

Severity

INFORMATIONAL

Description

This message occurs when a volume that was marked as in-nvfailed-state is explicitly cleared.

Corrective Action

(None).

Syslog Message

Volume %s%s%s that was marked as in-nvfailed-state has been cleared.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): If the volume belongs to a Vserver, the Vserver's Universal Unique Identifier (UUID).

wafl.vol.clone.split.nospace

Severity

NOTICE

Description

This event is issued when there's not enough free space to complete a volume clone split operation. The usual cause for this is when there are many data blocks in the snapshot that is shared between the clone volume and its parent.

Corrective Action

Free space in the clone volume to allow the split operation to take place, for example by deleting all snapshots in the clone volume.

Syslog Message

Volume clone split of '%s%s' cannot be completed, not enough disk space. Consider removing snapshots.

Parameters

name (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vol.clone.unlock.snapshot.destroy.failed

Severity

NOTICE

Description

This event is issued when the volume options are set such that the autodelete destroy policy is allowed to destroy volume clones referring to the snapshot to be deleted. It indicates an attempt to destroy a volume clone has failed.

Corrective Action

(None).

Syslog Message

Volume clone destroy of '%s' failed.

Parameters

name (STRING): The volume clone name

wafl.vol.clone.unlock.snapshot.failure

Severity

NOTICE

Description

This event is issued when the volume options are set such that the autodelete destroy policy is allowed to destroy volume clones referring to the snapshot to be deleted. It indicates the process of destroying volume clones has failed. Some volume clones may have been destroyed or left offline as a result.

Corrective Action

(None).

Syslog Message

Process of destroying volume clones using volume %s snapid %d failed. Some volume clones may have been taken offline or destroyed.

Parameters

name (STRING): The volume name
snapid (INT): Snapshot identifier.

wafl.vol.clone.unlock.snapshot.offline.failed

Severity

NOTICE

Description

This event is issued when the volume options are set such that the autodelete destroy policy is allowed to destroy volume clones referring to the snapshot to be deleted. It indicates an attempt to offline a volume clone has failed.

Corrective Action

(None).

Syslog Message

Volume clone offline of '%s' failed.

Parameters

name (STRING): The volume clone name

wafl.vol.clone.unlock.snapshot.start

Severity

INFORMATIONAL

Description

This message occurs when the volume options are set so that the autodelete destroy policy is allowed to destroy volume clones referring to the snapshot to be deleted. The message indicates that the process of destroying volume clones is beginning. The snapshot autodelete destroy policy is used when all other attempts to recover space in a thin-provisioned aggregate fail. The disruptive effect of destroying volume clones should be understood when setting this policy.

Corrective Action

(None).

Syslog Message

Starting process of destroying volume clones using volume %s snapid %d.

Parameters

name (STRING): Volume name.
snapid (INT): Snapshot identifier.

wafl.vol.clone.unlock.snapshot.success

Severity

INFORMATIONAL

Description

This message occurs when the volume options are set so that the autodelete destroy policy is allowed to destroy volume clones referring to the snapshot to be deleted. The message indicates that the process of destroying volume clones has successfully completed.

Corrective Action

(None).

Syslog Message

Destroyed all volume clones using using volume %s snapid %d.

Parameters

name (STRING): Volume name.
snapid (INT): Snapshot identifier.

wafl.vol.create.clusterVolOnCFOaggr

Severity

ERROR

Description

This message occurs when a volume is created on a Controller Failover (CFO) high-availablity (HA) style aggregate. File access delays will occur for a period following giveback.

Corrective Action

To minimize file access delays following giveback, create the volume on an aggregate with a Storage Failover (SFO) HA policy.

Syslog Message

Creating volume '%s' on an aggregate with a CFO HA policy. File access delays will occur for a period following giveback.

Parameters

vol (STRING): Name of the volume.

wafl.vol.deswizzle.done

Severity

INFORMATIONAL

Description

This message occurs when the deswizzle scan is complete.

Corrective Action

(None).

Syslog Message

(None).

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
run_time (LONGINT): Total run time of the scanner.

wafl.vol.fix.comp.algo.list

Severity

NOTICE

Description

This message occurs when CP detects and rectifies an incorrect compression algorithm list in volume.

Corrective Action

(None).

Syslog Message

List of used compression algorithms in the volume %s has been fixed. was %llu, now %llu.

Parameters

vol (STRING): Volume name.
old_val (LONGINT): Old value of compression algorithm list
new_val (LONGINT): New value of compression algorithm list

wafl.vol.fsp.full

Severity

ERROR

Description

This message occurs when an operation requests more space than is available in the Flexible Space Pool.

Corrective Action

Report this condition to NetApp technical support.

Syslog Message

%s %s%s%s%s: insufficient space in FSP %s to satisfy a request of %llu holes and %llu overwrites.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Volume identifier, in order to uniquely identify the volume in cases where volume name alone is insufficient.
fspname (STRING): The name of the flexible space pool.
requested (LONGINT): Amount of space requested from the flexible space pool.
requested_overwrites (LONGINT): Amount of overwrite reserve space requested from the flexible space pool.

wafl.vol.full

Severity

ALERT

Description

This message occurs when an operation requests more space than is available in the relevant volume.

Corrective Action

Consider manually deleting data or increasing the volume's size for one-time space issues. For frequent space issues, consider changing autogrow/autodelete settings.

Syslog Message

Insufficient space on %s %s%s%s%s to perform operation. %s was requested but only %s was available.

Parameters

> **type** (STRING): Type of object (volume/aggregate).
> **owner** (STRING): Volume owner.
> **vol** (STRING): Volume name.
> **app** (STRING): Application UUID.
> **volident** (STRING): Volume identifier, in order to uniquely identify the volume in cases where volume name alone is insufficient.
> **requested** (STRING): Amount of space requested in the volume.
> **available** (STRING): Amount of space available in the volume.

wafl.vol.guarantee.fail

Severity

> NOTICE

Description

> This message occurs when an attempt is made to apply the space guarantee for a flexible volume, but there is not enough space in the aggregate to do so. The volume will be mounted, but subsequent writes to the volume might fail if the volume's aggregate becomes full.

Corrective Action

> Either increase the size of the corresponding aggregate by adding disks, or decrease the total volume space requirements in the aggregate by shrinking or destroying one or more volumes.

Syslog Message

> Space for volume %s%s is not guaranteed. %s of additional space is required to enable the guarantee.

Parameters

> **vol** (STRING): Name of the volume whose space guarantee could not be applied.
> **app** (STRING): Application UUID.
> **volident** (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
> **short_by** (STRING): Amount of additional space required in the volume.

wafl.vol.guarantee.stayoff

Severity

> NOTICE

Description

> This message occurs when WAFL® would otherwise have attempted to enable a volume's space guarantee, but the last time it tried, an error was encountered (most likely due to insufficient space). This error was recorded in the volume's on-disk RAID label so that the same error would not be repeated on future mounts. The volume will be mounted. However, because the volume is not guaranteed, it is possible that subsequent writes to the volume could fail if the volume's aggregate becomes full.

Corrective Action

> Determine the cause of the error the last time WAFL attempted to enable this guarantee, either through logs or by attempting to enable it again manually. Typically, the issue is a lack of space at mount time detected during boot, which can be resolved by increasing the size of the corresponding aggregate (by adding disks or by shrinking or destroying some of the aggregate's volumes). After the issue is resolved, manually attempt to re-enable the guarantee using the 'volume modify' command.

Syslog Message

The space guarantee for volume %s%s was not enabled because an error occurred the last time a guarantee was enabled on this volume.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Volume identifier.

wafl.vol.inode.space.usage

Severity

ERROR

Description

This message occurs when public inode space usage exceeds threshold value configured by admin.

Corrective Action

Use the command "volume modify <volume-name> -files <new-files-value>" to increase the number of files that the volume is allowed to contain. View the current value of the file threshold by using the command "volume show <volume-name> -fields files". If volume modify fails, increase volume size and try again.

Syslog Message

The file system on %s %s%s%s%s is currently using %d%% of the files that can be contained on the volume. The admin has configured the threshold for monitoring public inode usage as %d%%.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique volume identifier when the volume name alone is insufficient.
current_inofile_used (INT): Current value of inodes in public inode space.
threshold_ems_inofile_used_pct (INT): Threshold percent value to monitor inodes usage.

wafl.vol.invalid.nomount

Severity

NOTICE

Description

This event is issued when a volume has not been fully copied and cannot be mounted.

Corrective Action

(None).

Syslog Message

Volume %s is not fully copied and cannot be mounted.

Parameters

vol (STRING): The volume name

wafl.vol.invalidate.fh

Severity

NOTICE

Description

This message indicates that an NVRAM failure is detected, invalidating outstanding filehandles.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s: Invalidating all filehandles due to previous NVRAM failure — Filesystem must be remounted by the client(s)

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.vol.mirrorType.invalid

Severity

ERROR

Description

This message occurs when WAFL® attempts to bring online a mirror volume that does not have a valid mirror-type attribute. This situation might be a direct result of an upgrade to a version of Data ONTAP® that requires the mirror-type attribute or as a result of a corruption.

Corrective Action

This condition cannot be fixed by file system repair mechanisms such as wafliron. The data is not lost, but it is inaccessible to the administrator. To access the data, contact NetApp technical support. Alternatively, the administrator can destroy the mirror volume by using the 'volume delete -vserver vserver_name -volume vol_name' command.

Syslog Message

The mirror type associated with the mirror volume %s %s%s%s%s is invalid.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name by itself is insufficient.

wafl.vol.mislabeled.root

Severity

NOTICE

Description

This event is issued when a volume or aggregate is labeled as root but was not selected as the root volume or aggregate. It is used to indicate that the label will be removed.

Corrective Action

(None).

Syslog Message

%s '%s%s%s' was incorrectly labeled as root. Removing the label.

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner Can be the empty string
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vol.nvfail.offline

Severity

EMERGENCY

Description

This message occurs when the system detects an NVRAM failure and the volume is inconsistent. The volume might have data loss due to NVRAM failure. The volume has taken offlined.

Corrective Action

Take the appropriate recovery action to recover from the possible data loss. Access to the volume is restricted until you clear the NVFAIL state manually.

Syslog Message

Volume %s%s is offline.

Parameters

owner (STRING): Volume owner.
vol (STRING): Volume name.

wafl.vol.nvfail.recovery.needed

Severity

NOTICE

Description

This message occurs periodically to inform the administrator that recovery procedures must be performed on a volume that is marked as in-nvfailed-state.

Corrective Action

Take the appropriate recovery action to recover from the possible data loss. Access to the volume is

restricted until you clear the NVFAIL state manually.

Syslog Message

Volume %s%s%s is marked as in-nvfailed-state. The recovery process needs to be initiated on the volume to recover from the NVFAIL event.

Parameters

vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): If the volume belongs to a Vserver, the Vserver's Universal Unique Identifier (UUID).

wafl.vol.offline

Severity

INFORMATIONAL

Description

This message indicates that a volume has been taken offline.

Corrective Action

(None).

Syslog Message

%s %s%s%s%s has been taken temporarily offline.

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
instuuid (STRING): Volume Instance UUID

wafl.vol.offline.callbacks

Severity

NOTICE

Description

Data ONTAP was trying to offline a volume and had to ignore the result of file-locking callbacks being sent to clients in order to make progress. This is transparent to clients, as they will retry their original requests, which will be serviced when the volume comes back online.

Corrective Action

(None).

Syslog Message

Ignoring %d callbacks when offlining %s %s%s%s%s.

Parameters

count (INT): The number of callbacks which were ignored
type (STRING): The type of object (volume or aggregate)

owner (STRING): The owner of the volume
vol (STRING): The name of the volume
app (STRING): Application UUID.
volident (STRING): The unique identifier of the volume in case the volume name itself is insufficient

wafl.vol.outOfInodes

Severity

ERROR

Description

This message occurs when a volume or aggregate reaches its maximum number of files and is out of inodes.

Corrective Action

For a volume, either use the command "volume modify -files" to increase the number the files that the volume is allowed to contain, or delete files from the volume. For an aggregate, add space to the aggregate.

Syslog Message

file system on %s %s%s%s%s is out of inodes because it has reached the maximum number of files

Parameters

type (STRING): Type of object (volume or aggregate)
owner (STRING): Owner of the volume or aggregate
vol (STRING): Name of the volume or aggregate
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume or aggregate in cases where the name itself is insufficient.

wafl.vol.outOfPrInodes

Deprecated
Severity

NOTICE

Description

This event is issued when the system discover that a volume is out of private inodes.

Corrective Action

(None).

Syslog Message

file system on %s %s%s%s%s is out of private inodes

Parameters

type (STRING): The type of object (volume/aggregate)
owner (STRING): The volume owner
vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vol.quiesce.giveback

Severity

INFORMATIONAL

Description

This event is issued to indicate a volume quiescing has failed because wafl giveback is running.

Corrective Action

Retry quiescing the volume after giveback has completed.

Syslog Message

Quiescing volume %s failed because wafl giveback is running.

Parameters

vol (STRING): The volume name

wafl.vol.quiesce.iron

Severity

INFORMATIONAL

Description

This event is issued to indicate a volume quiescing has failed because wafl iron is running.

Corrective Action

Retry quiescing the volume after wafl iron has completed.

Syslog Message

Quiescing volume %s failed because wafl iron is running.

Parameters

vol (STRING): The volume name

wafl.vol.quiesce.notdrain

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation fails because of a general failure in draining the suspended messages or outstanding callbacks. This covers unknown cases that wafl.vol.quiesce.timeoutcb does not catch.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because draining message and callbacks failed. The total time spent quiescing the volume was %d milliseconds, %d of which was spent aborting scanners, %d milliseconds were spent flushing client requests for locks and watches, %d milliseconds were spent draining volume

references and %d milliseconds were spent draining callbacks and suspended messages.

Parameters

    vol (STRING): Volume name.
    ttq (INT): Time spent (in milliseconds) quiescing the volume.
    tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
    twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.
    twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.
    twdcm (INT): Time spent (in milliseconds) waiting for draining of suspended messages and callbacks.

wafl.vol.quiesce.notFlex

Severity

    INFORMATIONAL

Description

    This event is issued to indicate a volume quiescing has failed because it is not a flex vol.

Corrective Action

    (None).

Syslog Message

    Quiescing volume %s failed because it's not a flexible volume.

Parameters

    vol (STRING): The volume name

wafl.vol.quiesce.notMounted

Severity

    INFORMATIONAL

Description

    This event is issued to indicate a volume quiescing has failed because it is not in mounted state.

Corrective Action

    (None).

Syslog Message

    Quiescing volume %s failed because it's not mounted. It's in %s state.

Parameters

    vol (STRING): The volume name
    statename (STRING): The state

wafl.vol.quiesce.relocating

Severity

    ERROR

Description

This message occurs when a volume cannot be quiesced because an aggregate relocation operation is running.

Corrective Action

Retry the volume move operation after the aggregate relocation operation is complete.

Syslog Message

Volume %s could not be quiesced because aggregate relocation is running.

Parameters

vol (STRING): Volume name.

wafl.vol.quiesce.rootVol

Severity

INFORMATIONAL

Description

This event is issued to indicate a volume quiescing has failed because it is a root volume.

Corrective Action

(None).

Syslog Message

Quiescing volume %s failed because it's a root volume.

Parameters

vol (STRING): The volume name

wafl.vol.quiesce.statusvol

Severity

ERROR

Description

This message occurs when a volume cannot be quiesced because it is being used to host wafliron status files.

Corrective Action

Use "aggr wafliron show" command to monitor the status of wafliron and retry the operation after wafliron is complete.

Syslog Message

Volume %s could not be quiesced because it is being used by wafliron to host status files.

Parameters

vol (STRING): Volume name.

wafl.vol.quiesce.timeoutcb

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring draining of suspended callbacks or messages fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because there are %d outstanding callbacks and %d suspended messages. The time spent waiting for these to drain was %d milliseconds. The time spent quiescing the volume (%d milliseconds) was split between scan aborts (%d), flushing client requests (%d), and draining references (%d).

Parameters

vol (STRING): Volume name.
ncbo (INT): Number of outstanding callbacks.
nsm (INT): Number of suspended messages.
twdcm (INT): Time spent (in milliseconds) waiting for draining of suspended messages and callbacks.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
twcr (INT): Time spent (in millseconds) flushing client requests for locks and watches.
twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.

wafl.Vol.QuiesceTO.AbrtScan

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring scanners to abort fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of the volume %s failed because aborting the scanners resulted in a timeout. The time spent quiescing the volume was %d milliseconds of which %d milliseconds were spent waiting for the scanners to abort.

Parameters

vol (STRING): Volume name.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
ttq (INT): Time spent (in milliseconds) quiescing the volume.

wafl.Vol.QuiesceTO.CIntReqs

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring flushing of client requests for locks and watches fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because time spent waiting for flushing of client requests for locks and watches (%d milliseconds) resulted in a timeout. The total time spent quiescing the volume was %d milliseconds - %d milliseconds were spent aborting scanners.

Parameters

vol (STRING): Volume name.
twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.

wafl.Vol.QuiesceTO.RalDrain

Severity

NOTICE

Description

This message occurs during a volume move operation, when a volume quiesce attempt fails to drain all of the outstanding remote cached inodes within the allowable time frame. This can occur and might persist on a heavily loaded system, and it prevents the move from being completed. However, as soon as the load drops to a more reasonable level, ONTAP flushes the cached inodes and completes the move without customer intervention.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because it was unable to drain all outstanding remote inodes for the volume. Initially the volume reported %d cached inodes, but timed out with %d cached inodes remaining.

Parameters

vol (STRING): Volume name.
nStart (INT): Number of cached inodes when drain starts.
nEnd (INT): Number of cached inodes when request times out.

wafl.Vol.QuiesceTO.RefDrain

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring draining of volume references fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because the time spent draining the references on the volume (%d milliseconds) resulted in a timeout. There are %d references on the volume. One of the owners is %s. The command "wafl vref status" under diag privileges can be used to view all the references on a volume on the node owning the volume. The time spent quiescing the volume (%d milliseconds) was split between scan aborts (%d) and flushing client requests(%d).

Parameters

vol (STRING): Volume name.
twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.
wvc (INT): Number of references on the volume.
vo_1 (STRING): Text string representing the first volume reference owner.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.

wafl.Vol.QuiesceTO.RefsDrain

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring draining of volume references fails because of a timeout. The references are released.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because the time spent draining the references on the volume (%d milliseconds) resulted in a timeout. The time spent quiescing the volume (%d milliseconds), was split between scan aborts (%d) and flushing client requests (%d).

Parameters

vol (STRING): Volume name.
twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.

wafl.Vol.QuiesceTO.SAN.Ntfy

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring a notification to the SAN component fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because a quiesce notification to the SAN component (%d milliseconds) resulted in a timeout. The time spent quiescing the volume (%d milliseconds) was split between scan aborts (%d), flushing client requests (%d), draining references (%d), draining callbacks and suspended messages (%d), and draining zombies (%d).

Parameters

vol (STRING): Volume name.
twsc (INT): Time spent (in milliseconds) waiting to for quiescing of the SAN component.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.
twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.
twdcm (INT): Time spent (in milliseconds) waiting for draining of suspended messages and callbacks.
twzd (INT): Time spent (in milliseconds) waiting for draining of zombies.

wafl.Vol.QuiesceTO.ZmbDrain

Severity

INFORMATIONAL

Description

This message occurs when a volume quiesce operation requiring draining of zombies fails because of a timeout.

Corrective Action

(None).

Syslog Message

Quiescing of volume %s failed because the time spent draining zombies (%d milliseconds) resulted in a timeout. The time spent quiescing the volume (%d milliseconds) was split between scan aborts (%d), flushing client requests (%d), draining references (%d), and draining callbacks and suspended messages (%d).

Parameters

vol (STRING): Volume name.
twzd (INT): Time spent (in milliseconds) waiting for draining of zombies.
ttq (INT): Time spent (in milliseconds) quiescing the volume.
tws (INT): Time spent (in milliseconds) waiting for scanners to abort.
twcr (INT): Time spent (in milliseconds) flushing client requests for locks and watches.
twvr (INT): Time spent (in milliseconds) waiting for draining of volume references.
twdcm (INT): Time spent (in milliseconds) waiting for draining of suspended messages and callbacks.

wafl.vol.rekey.stat

Severity

NOTICE

Description

This message occurs when rekey scan ends to dump the stats.

Corrective Action

(None).

Syslog Message

Rekey scan is complete on volume '%s' (dsid %lu, aggr '%s'). Scan Stats: max_usecs_in_cpu = %lu, blks_total = %lu, max_blks_rekeyed_in_step = %lu, blks_rekeyed_by_scanner = %lu blks_rekeyed_by_client_io = %lu blks_with_error = %lu blks_skipped_dirty = %lu blks_suspended_fake_dirty = %lu blks_skipped_holes = %lu blks_packed = %lu

Parameters

vol (STRING): Volume name.
dsid (LONGINT): Unique identifier (DSID) of the volume.
aggr (STRING): Name of the containing aggregate.
max_usecs_in_cpu (LONGINT): Max. time (in micro-sec.) scanner runs in CPU.
blks_total (LONGINT): Total number of blocks scanner is expected to process.
max_blks_rekeyed_in_step (LONGINT): Max. number of blocks scanner process in one step.
blks_rekeyed_by_scanner (LONGINT): Number of blocks rekeyed by scanner.
blks_rekeyed_by_client_io (LONGINT): Number of blocks rekeyed by client I/O.
blks_with_error (LONGINT): Number of blocks failed to be loaded by scanner due to error.
blks_skipped_dirty (LONGINT): Number of blocks skipped by scanner because they are already dirty.
blks_suspended_fake_dirty (LONGINT): Number of blocks rekey scanner suspended on because they were fake dirty.
blks_skipped_holes (LONGINT): Number of blocks skipped by scanner because they are holes.
blks_packed (LONGINT): Number of blocks packed.

wafl.vol.runningOutOfInodes

Severity

ERROR

Description

This message occurs when the system detects that a volume is close to reaching its limit on the number of files that it can contain.

Corrective Action

Consider using the "volume modify <volume-name> -files <new-files-value>" command to increase the number of files that the volume is allowed to contain. You can view the current value of the file threshold by using the "volume show <volume-name> -fields files" command.

Syslog Message

The file system on "%s %s%s%s%s" is using 80 percent or more of the files in %s inode space that can be contained on the volume.

Parameters

ino_type (STRING): Inode type

type (STRING): Type of object (volume or aggregate).

owner (STRING): Volume owner.

vol (STRING): Volume name.

app (STRING): Application UUID.

volident (STRING): Unique volume identifier when the volume name alone is insufficient.

wafl.vol.setting.in.nvfailed.state

Severity

ERROR

Description

This message occurs when the system detects an NVFAIL event in a volume and marks the volume as in-nvfailed-state.

Corrective Action

Access to the volume is restricted until you clear the NVFAIL state manually. See the Data Protection Online Backup and Recovery Guide.

Syslog Message

Volume %s%s%s is marked as in-nvfailed-state: %s.

Parameters

vol (STRING): Name of the volume.

app (STRING): Application UUID.

volident (STRING): If the volume belongs to a Vserver, the Vserver's Universal Unique Identifier (UUID).

err (STRING): Error that caused the volume to be marked in in-nvfailed-state.

wafl.vol.snap_create.done

Severity

INFORMATIONAL

Description

This message occurs when the 'snap create' scan is complete.

Corrective Action

(None).

Syslog Message

(None).

Parameters

type (STRING): Type of object (volume or aggregate).

owner (STRING): Volume owner.

vol (STRING): Volume name.

app (STRING): Application UUID.

volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

run_time (LONGINT): Total run time of the scanner.

wafl.vol.spcslo.conflict

Severity

ERROR

Description

This message occurs when the Service Level Objective related to space management (the space SLO setting) for a volume conflicts with other volume settings.

Corrective Action

Try correcting the conflicting volume setting or space SLO by using the "volume modify <volname>" command.

Syslog Message

The space SLO setting %s for volume %s%s is incompatible with the volume's %s setting (%s)%s.

Parameters

space_slo (STRING): Space SLO of the volume.
vol (STRING): Name of the volume with conflicting settings.
app (STRING): Application UUID.
volident (STRING): String that uniquely identifies the volume when the volume name is insufficient.
setting (STRING): Name of the conflicting volume setting.
value (STRING): Value of the conflicting volume setting.
detail (STRING): Corrective action already taken, if any.

wafl.vol.tooFullForUnlink

Severity

ALERT

Description

This message occurs when an unlink operation requires more space than is available for unlinking in the relevant volume. Clients cannot remove files or directories until free space is added.

Corrective Action

Manually delete snapshots or increase the volume's size for one-time space issues. For frequent space issues, consider changing autogrow or autodelete settings for the volume or aggregate in question.

Syslog Message

Insufficient free space available on %s %s %s%s %s to perform unlink operation.

Parameters

type (STRING): Type of object (volume or aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Volume identifier.

wafl.vol.unable.autogrow

Severity

ERROR

Description

This message occurs when automatically growing a volume fails because the underlying storage of the SVM (Vserver) has reached the SVM's storage limit.

Corrective Action

Increase the storage of the SVM by raising the storage limit. Alternatively, recover storage space by deleting volumes, snapshots, LUNs, or files.

Syslog Message

Auto-grow of volume "%s" failed because the SVM's storage limit has been reached.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
object_uuid (STRING): Volume instance UUID of the resource object.

wafl.vol.walloc.rsv.dbg.reset

Severity

NOTICE

Description

This event is issued to indicate that the write allocation reserve thresholds for a volume or aggregate have reset to normal. This message is issued on DEBUG builds only.

Corrective Action

(None).

Syslog Message

DBG: Volume %s allocation reserve thresholds reset.

Parameters

vol (STRING): The volume or aggregate name

wafl.vol.walloc.rsv.dbg.warn.blkcnt

Severity

NOTICE

Description

This event is issued to indicate that the write allocation reserve code has triggered but the volume block counters appear to be in the normal range.

Corrective Action

(None).

Syslog Message

DBG: Volume (or aggregate) %s free space reserve hit %s threshold but block count doesn't match.

Parameters

vol (STRING): The volume or aggregate name
type (STRING): Threshold type: "low" or "high"

wafl.vol.walloc.rsv.failmount

Severity

EMERGENCY

Description

This message occurs when a volume consumes almost all of its free space reserve and should not be brought back online without assistance from technical support to address the free space issue.

Corrective Action

Contact NetApp technical support.

Syslog Message

Failing mount of volume %s. Free space reserve is too low. Contact NetApp technical support for assistance.

Parameters

vol (STRING): Volume name.

wafl.vol.walloc.rsv.offline

Severity

ALERT

Description

This message occurs when a volume or aggregate has consumed almost all of its free space reserve. The system is being shut down and rebooted cleanly and the affected aggregate or volume will be taken offline until the situation can be corrected with help from technical support.

Corrective Action

Contact NetApp technical support..

Syslog Message

Volume %s free space reserve is critically low. Rebooting system to take volume offline. Contact technical support for assistance.

Parameters

vol (STRING): Volume or aggregate name.

wafl.vol.walloc.rsv.root

Severity

ALERT

Description

This message occurs when the root volume has consumed almost its entire free space reserve. This is a highly abnormal condition that can lead to data loss if the free space reserve is completely consumed.

Corrective Action

Increasing the root volume size. Contact NetApp technical support for more information.

Syslog Message

Root volume (or aggregate) %s free space reserve is critically low.

Parameters

vol (STRING): Root volume or aggregate name.

wafl.volinfo events

wafl.volinfo.fsinfo.error

Severity

ALERT

Description

This message occurs when there is an error while reading the volinfo or fsinfo block of a volume.

Corrective Action

Take appropriate action based on the reason for the error.

Syslog Message

%s for %s '%s'

Parameters

reason (STRING): Reason for the error
type (STRING): The type of object (volume/aggregate)
vol (STRING): The name of the volume

wafl.volmove events

wafl.volmove.dst.amd.corrupt

Severity

ALERT

Description

This message occurs when the active map delta file for a volume move destination is corrupt.

Corrective Action

Run wafliron on the volume after the "volume move" operation is complete. For further assistance, contact NetApp technical support.

Active map delta file for the "volume move" destination "%s" is corrupt.

Parameters

vol (STRING): Volume name.

wafl.volref events

wafl.volref.subsystem.string

Severity

ERROR

Description

This message occurs when wafliron is started on aggregate containing volumes, which are in-use by other subsystems.

Corrective Action

Stop the subsystem which is using this volume/aggregate So that wafliron can be run.

Syslog Message

wafliron: %s %s is being used by '%s'

Parameters

type (STRING): Type of object (volume or aggregate).
vol (STRING): Name of the volume or aggregate.
volref (STRING): volume reference string of the subsystem using this volume/aggregate.

wafl.voltrans events

wafl.voltrans.clear.noi2p

Severity

NOTICE

Description

This message occurs when a volume transition clears the noi2p option on a volume.

Corrective Action

(None).

Syslog Message

Volume transition will disable the noi2p option by default on volume %s.

Parameters

volname (STRING): Name of the volume.

wafl.voltrans.clear.svo

Severity

NOTICE

Description

This message occurs when a volume transition operation clears the SnapValidator for Oracle options on a volume.

Corrective Action

(None).

Syslog Message

Volume transition will disable the SnapValidator® for Oracle (svo) options by default on volume %s.

Parameters

volname (STRING): Name of the volume.

wafl.voltrans.dircopy.fail

Severity

ALERT

Description

This message occurs when a volume transition convert directory operation fails.

Corrective Action

Check the status of the job by using the "volume transition-convert-dir show" (privilege: diag) command. Retry the volume transition after all volume directory transition operations have finished. If the operation fails on the second attempt, contact NetApp technical support.

Syslog Message

Volume transition-convert-dir operation failed on volume "%s", copying path "%s" to temporary directory "%s". Error code: %d.

Parameters

volname (STRING): Name of the volume.
path (STRING): Path of the directory to be copied.
tempname (STRING): Directory name to use as the temporary target for copy conversion.
errcode (INT): Error code upon completion.

wafl.voltrans.flexcache

Severity

ERROR

Description

This message occurs during volume transition workflow when the transition volume is a FlexCache® volume. Support for FlexCache is deprecated.

Corrective Action

Delete the FlexCache volume.

Syslog Message

Volume transition failed due to unsupported FlexCache volume %s uuid %s.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.inconsistent.state

Severity

ERROR

Description

This message occurs when a volume transition operation fails because the volume is in an inconsistent state.

Corrective Action

Delete the inconsistent volume. Alternatively, return the disks to a 7-Mode environment to repair the volume.

Syslog Message

Volume transition failed for volume %s uuid %s due to its inconsistent state.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.qtree.novfiler

Severity

NOTICE

Description

This message occurs when a volume transition operation encounters qtrees not associated with the default vFiler unit.

Corrective Action

(None).

Syslog Message

Volume transition detected non-default vfiler qtrees in volume %s%s%s.

Parameters

volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the owning Vserver when the volume name alone is insufficient.

wafl.voltrans.qtree.replica

Severity

ERROR

Description

This message occurs when a volume transition operation is attempted on a volume that is a qtree replica volume. Transitioning volumes that are qtree replica volumes is an unsupported operation. This condition exists because the source volume for the Transition Data Protection (TDP) SnapMirror® relationship is a qtree replica volume.

Corrective Action

Break all of the qtree replica relationships associated with the source volume of the TDP SnapMirror relationship. After that is done, perform a 'snapmirror update' or 'snapmirror resync' operation, and then a 'snapmirror break' operation, to attempt the volume transition operation again.

Syslog Message

The source of volume %s is a qtree replica. It cannot be transitioned to clustered Data ONTAP.

Parameters

volname (STRING): Name of the volume.

wafl.voltrans.sfsr.pending

Severity

ERROR

Description

This message occurs when a volume transition operation fails because of a pending file restore process.

Corrective Action

Move the disks back to 7-Mode, use ZAPI command 'snapshot-restore-file-info' to ensure that all pending single file restore sessions are completed, and then try the transition again.

Syslog Message

Volume transition failed for volume %s uuid %s due to pending single file restore process.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.snapids

Severity

ERROR

Description

This message occurs when a volume transition operation fails because it cannot update the logical SnapID table.

Corrective Action

(None).

Syslog Message

Volume %s failed to update the logical SnapID table and could not be transitioned.

Parameters

volname (STRING): Name of the volume.

wafl.voltrans.snapshot.32bit

Severity

ERROR

Description

This message occurs during volume transition workflow when 32-bit snapshot is detected for the transition volume.

Corrective Action

Retry volume transition to bypass this specific error. All 32-bit snapshots are automatically deleted as part of the volume transition.

Syslog Message

Volume transition failed due to unsupported 32-bit snapshots on volume %s uuid %s.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.ss.lun.clone

Severity

ERROR

Description

This message occurs when a volume transition operation detects one or more LUN clones backed up by snapshots within a voliume.

Corrective Action

Retry volume transition to bypass this specific error, force the volume online, and continue the transition operation. This results in data loss for all the LUN clones that have snapshots in this volume. Alternatively, return the disks to a 7-Mode environment, split the LUN clones, and then repeat the transition workflow.

Syslog Message

Volume transition failed for volume %s uuid %s due to one or more snapshot backed lun clones.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.vol.32bit

Severity

ERROR

Description

This message occurs during volume transition workflow when a 32-bit volume is detected for the transition volume.

Corrective Action

Delete the 32-bit volume. Alternatively, return the disks to a 7-Mode environment and upgrade the 32-bit volume to a 64-bit volume and then repeat the transition workflow.

Syslog Message

Volume transition failed due to unsupported 32-bit volume %s uuid %s.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.was.offline

Severity

ERROR

Description

This message occurs when a volume transition operation encounters an offline volume.

Corrective Action

Retry volume transition to bypass this specific error, force the volume online, and continue the transition operation. This might lead to data loss if the offline volume contains uncommitted data.

Syslog Message

Volume transition failed for offline volume %s uuid %s.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.voltrans.was.restricted

Severity

ERROR

Description

This message occurs when a volume transition operation encounters a restricted volume.

Corrective Action

Retry volume transition to bypass this specific error, force the volume online, and continue the transition operation.

Syslog Message

Volume transition failed for restricted volume %s uuid %s.

Parameters

volname (STRING): Name of the volume.
voluuid (STRING): Unique identifier for this volume.

wafl.volume events

wafl.volume.charmap.loadfail

Severity

ERROR

Description

This message occurs when a volume comes online with a corrupted or unavailable character mapping configuration.

Corrective Action

Remove character mapping by using the "vserver cifs character-mapping delete" command. Then reapply it by using the "vserver cifs character-mapping create" command. For more information, see the "vserver cifs character-mapping" man page. For further assistance, contact NetApp technical support.

Syslog Message

Failed to load character mapping configuration for volume %s. Reason: %s.

Parameters

volname (STRING): Volume for which loading of the character mapping configuration failed.
reason (STRING): Reason for failure.

wafl.volume.clone.created

Severity

INFORMATIONAL

Description

This message occurs when a clone of a flexible volume is created successfully.

Corrective Action

(None).

Syslog Message

Volume clone %s of volume %s was created successfully.

Parameters

clonename (STRING): Volume clone name
volname (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.volume.clone.fractional_rsrv.changed

Severity

INFORMATIONAL

Description

This message occurs when the space reservation of a flexible volume clone is changed to 100 percent because guarantee of the clone is set to 'file'.

Corrective Action

(None).

Syslog Message

Fractional reservation for clone '%s:%d' was changed to 100 percent because guarantee is set to 'file'.

Parameters

clonename (STRING): Volume clone name.
Ordinal (INT): Volume Ordinal.

wafl.volume.clone.snap.cpcount.load.failure

Severity

ERROR

Description

This message occurs when a clone of a flexible volume fails to load the cp count of its or the parent volume's base snapshots.

Corrective Action

(None).

Syslog Message

Volume clone %s failed to load the cp count of its or the parent volume's base snapshot, with Snap ID %d.

Parameters

clonename (STRING): Volume clone name.
snapid (INT): Snapshot ID of the clone volume's base snapshot.

wafl.volume.clone.split.started

Severity

INFORMATIONAL

Description

This message occurs when an operation to split a flexible volume clone from its parent volume is started successfully.

Corrective Action

(None).

Syslog Message

Clone split was started for volume %s%s%s

Parameters

volname (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.volume.clone.with.uid.gid

Severity

INFORMATIONAL

Description

This message occurs when a clone of a flexible volume is created with a volume-level UID and GID.

Corrective Action

Split the clone volume before creating this as a source of an XDP-type SnapMirror relationship.

Syslog Message

Volume clone %s%s%s was created with vol-level UID and GID. If this clone volume is used as a source of XDP type SnapMirror relationship, then UID and GID of all the transferred file at the destination will be unpredictable.

Parameters

clonename (STRING): Volume clone name.
app (STRING): Application UUID.
vserver_uuid (STRING): Universal Unique ID (UUID) of the clone volume's Vserver.

wafl.volume.find.valid_base.snap.failure

Severity

NOTICE

Description

This event is issued when an error occurs while finding the valid base snapshot for a clone volume.

Corrective Action

None required.

Syslog Message

Encountered error %u while finding the valid base snapshot having snapid %u for clone volume (clonename='%s', volident='%s').

Parameters

error_code (INT): A numerical error code indicating the reason why finding valid base snapshot failed for clone volume.
snapid (INT): Snapshot ID of the clone volume base snapshot.
clonename (STRING): Volume clone name.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.volume.inuse

Severity

ALERT

Description

This message occurs when a volume operation fails because the volume is being used in another operation.

Corrective Action

Check the status of the volume and aggregate using the "vol show" and "aggr show" commands. If there are no other operations running on either of them then retry your request. If problems persists, or you need further assistance, contact NetApp technical support.

Syslog Message

%s %s %s operation failed as volume is busy in another operation.

Parameters

type (STRING): Type of object (volume or aggregate).
vol (STRING): Name of the volume.
operation (STRING): Operation.

wafl.volume.inuse.by

Severity

ALERT

Description

This message occurs when a volume operation fails because the volume or parent aggregate is being used by another operation.

Corrective Action

Check the status of the volume and aggregate. Wait for the current operation to finish, and then retry your request. If problems persist or you need further assistance, contact NetApp technical support.

Syslog Message

%s %s %s operation failed because the volume or parent aggregate is locked by operation %s.

Parameters

type (STRING): Type of object (volume or aggregate).
vol (STRING): Name of the volume.
operation (STRING): Operation that failed.
locked_by (STRING): Operation currently locking the volume or parent aggregate.

wafl.volume.sidl.enableErr

Severity

ERROR

Description

This message occurs when an attempt to enable Single Instance Data Logging (SIDL) on a volume fails.

Corrective Action

Use the "volume efficiency show" and "volume show" commands to check the volume for enabled features that are incompatible with SIDL, such as compaction or inline deduplication. After the incompatible features are disabled, wait 10 seconds and then enable SIDL again.

Syslog Message

SIDL was not enabled on volume %s

Parameters

volume (STRING): Volume name.

wafl.volume.sidl.offline

Severity

ERROR

Description

This message occurs when a volume with single instance data logging enabled is taken offline due to the current version of Data ONTAP not supporting that feature. This situation can occur if a volume with the feature enabled is attempted to be onlined using a version of Data ONTAP that doesn't support it.

Corrective Action

To bring the volume online, use a version of Data ONTAP that supports single instance data logging.

Syslog Message

Volume "%s" was taken offline because the current version of Data ONTAP does not support single instance data logging, an enabled feature on this volume.

Parameters

volume (STRING): Volume name.

wafl.volume.slag.loadfailed

Severity

ERROR

Description

This message occurs when a loading or update of Storage-Level Access Guard(SLAG) fails because of an internal error. In this case, SLAG is not activated on the volume or qtree.

Corrective Action

Remove SLAG by using the "vserver security file-directory remove-slag" command, and then reapply it by using the "vserver security file-directory apply" command.

Syslog Message

Failed to load or update SLAG for SLAG level: %d on qtree ID: %d in volume "%s%s%s%s". Error:%d Reason: %s.

Parameters

loadflag (INT): SLAG load flag.
qtree (INT): Qtree identifier.

owner (STRING): Owner of the volume.
vol (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume in cases where the volume name itself is insufficient.
waflerror (INT): WAFL error which caused the failure.
reason (STRING): Reason for the failure.

wafl.volume.snap.autoDelete

Severity

INFORMATIONAL

Description

This message occurs when a snapshot in the volume is being deleted to free space. Snapshots can be deleted automatically from a volume to enforce the corresponding automatic deletion policy.

Corrective Action

(None).

Syslog Message

Deleting snapshot '%s' in volume '%s%s%s' to recover storage.

Parameters

name (STRING): Snapshot name.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.volume_snap events

wafl.volume_snap.autoDelete.fail

Severity

INFORMATIONAL

Description

This message occurs when automatic deletion of a snapshot fails.

Corrective Action

(None).

Syslog Message

Unable to delete snapshot '%s' in volume '%s%s%s' to recover space: %s

Parameters

name (STRING): Snapshot name.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Uniquely identifies the volume when the volume name itself is insufficient.
err (STRING): Reason for failure.

wafl.vv events

wafl.vv.bad.DSIDorMSID

Severity

ERROR

Description

This message occurs when Data ONTAP® cannot map a volume to serve a client request because of invalid data Set Identifiers. Protocol access to the volume is disabled.

Corrective Action

Take the volume offline and contact NetApp technical support.

Syslog Message

Cannot map volume '%s%s%s' to serve client requests because of invalid data set identifiers.

Parameters

vol (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vv.clone.splitBusySnap

Severity

NOTICE

Description

This event is to inform the user that a volume clone cannot split from its parent volume due to busy snapshots.

Corrective Action

Determine which snapshots in the clone volume are busy and correct the condition that is causing them to be busy. Then, retry the operation.

Syslog Message

Volume '%s%s%s' has locked snapshots, not splitting.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vv.clone.splitNoScan

Severity

NOTICE

Description

This event is to inform user that the system is unable to start a volume clone scanner, so the clone volume will not be split from its parent volume.

Corrective Action

This may be a temporary issue. Please retry the volume clone split operation after sometime.

Syslog Message

Unable to start clone split scanner on volume '%s%s%s'.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vv.dup.DSID2

Severity

ERROR

Description

This message occurs when another volume is already registered with the data set identifier (DSID) assigned to this volume.

Corrective Action

Contact NetApp technical support.

Syslog Message

Duplicate volume '%s%s%s' DSID (%08x) detected in aggregate '%s'.

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
dsid (LONGINT): Data set identifier.
aggr (STRING): Aggregate name.

wafl.vv.dup.UUID

Severity

NOTICE

Description

This message occurs when the system detects and updates a duplicate volume Universally Unique Identifier (UUID).

Corrective Action

(None).

Syslog Message

vvol '%s' in aggregate '%s' duplicate UUID %s was changed to %s.

Parameters

vol (STRING): Volume name.
aggr (STRING): Aggregate name.

old_uuid (STRING): Old duplicated UUID for the volume.
new_uuid (STRING): Replacement UUID for the volume.

wafl.vv.raidfile.open

Severity
NOTICE

Description
This event is to inform user that the system can not open the raid label file for update and the reason.

Corrective Action
(None).

Syslog Message
Unable to open volume descriptor: %s

Parameters
err (STRING): The error message

wafl.vv.raidfile.readOnly

Severity
NOTICE

Description
This event is to inform user that the raid label file can not be updated on a read only volume.

Corrective Action
(None).

Syslog Message
Unable to update volume descriptor, aggregate '%s' is readonly

Parameters
vol (STRING): The volume name

wafl.vv.raidfile.update

Severity
NOTICE

Description
This event is to inform user that while renaming a virtual volume, the system is unable to update the volume's raid label file

Corrective Action
(None).

Syslog Message
%s: Can't rewrite descriptor for volume '%s%s%s', aggregate '%s', error code %d.

Parameters

    cmd (STRING): The command name
    vol (STRING): The volume name
    app (STRING): Application UUID.
    volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
    aggr (STRING): The aggregate name
    err (INT): The error code

wafl.vv.regen.instance.uuid

Severity

    INFORMATIONAL

Description

    This message occurs when the instance UUID and the provenance UUID of a FlexVol(tm) volume have been regenerated.

Corrective Action

    (None).

Syslog Message

    For FlexVol volume '%s' with FSID 0x%x and instance UUID %s, a new instance UUID and provenance UUID (both being %s) have been generated.

Parameters

    vol (STRING): Volume name.
    fsid (INT): File system identifier.
    oldinstuuid (STRING): Old instance UUID of the volume.
    instuuid (STRING): New instance UUID of the volume. This is also the new prevenance UUID.

wafl.vv.rename.dup

Severity

    NOTICE

Description

    This message occurs when a duplicate flexible volume name is changed to a unique name.

Corrective Action

    (None).

Syslog Message

    Duplicate flexible volume name '%s%s%s' changed to '%s%s%s' in aggregate '%s'.

Parameters

    oldname (STRING): Duplicate name.
    app (STRING): Application UUID.
    volident1 (STRING): If the volume belongs to a vserver, this is that vserver's Universal Unique Identifier (UUID).
    newname (STRING): New name.
    app2 (STRING): Application UUID.
    volident2 (STRING): If the volume belongs to a vserver, this is that vserver's Universal Unique Identifier

(UUID).
aggrname (STRING): Name of the containing aggregate.

wafl.vv.set.size

Severity

NOTICE

Description

This event is issued when setting virtual volume size to the size indicated in fsinfo

Corrective Action

(None).

Syslog Message

Setting volume size for %s%s%s%s to match nominal size.

Parameters

owner (STRING): The volume owner
name (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vv.softlocks.noParent

Severity

NOTICE

Description

This event is to inform user that to remove softlocks associated with a volume clone, the parent volume must be online

Corrective Action

(None).

Syslog Message

Unable to find parent volume when destroying clone '%s%s%s' softlocks. Ensure the parent volume is online then retry the operation.

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.

wafl.vv.vol.config

Severity

NOTICE

Description

This event is issued to inform the user that the system can not configure a virtual volume and the reason.

Corrective Action

(None).

Syslog Message

Unable to configure volume in aggregate '%s': %s

Parameters

vol (STRING): The volume name
err (STRING): The error string

wafl.vv.vol.maxvols

Severity

NOTICE

Description

This message occurs when the system cannot configure a FlexVol® volume because the maximum number of volumes has been reached.

Corrective Action

Destroy some existing volumes to make room for new ones.

Syslog Message

Cannot configure FlexVol volume '%s' (UUID %s) in aggregate '%s': There are too many FlexVol volumes (%d) on the system. The limit for %s is %d.

Parameters

vol (STRING): FlexVol name.
uuid (STRING): FlexVol unique ID.
aggregate (STRING): Aggregate name.
count (INT): Current number of FlexVol volumes.
model (STRING): System model name.
limit (INT): Limit for the number of FlexVol volumes.

wafl.vvclock events

wafl.vvclock.string

Severity

ERROR

Description

This message occurs when an operation is run on an aggregate while the flexible volume level admin (vvc) lock of one of volumes of the aggregate is held by another subsystem. The message prints the name the subsystem that is holding the lock and the type of lock.

Corrective Action

Stop the subsystem that is using this volume/aggregate so that the operation can be run.

%s: aggregate %s is busy. Reason: vvc lock of the volume %s is held by subsystem %s. %s.

Parameters

operation (STRING): Name of the operation.
aggrname (STRING): Name of the aggregate, one of the volumes of which is holding the vvc lock.
vvolname (STRING): Name of the volume that is holding the vvc lock.
lockerstring (STRING): Name of the subsystem that is holding the vvc lock.
locktype (STRING): vvc lock type:WAFL® or SnapMirror®.

wafl.vvol events

wafl.vvol.create.encrypted

Severity

NOTICE

Description

This message occurs when an encrypted flexible volume is created.

Corrective Action

(None).

Syslog Message

New %s encrypted volume %s is created on aggregate %s.

Parameters

key_type (STRING): This Indicates encryption type of this volume is NetApp Aggregate Encryption (NAE) or NetApp Volume Encryption (NVE).
vol (STRING): Volume name.
aggr (STRING): Name of the containing aggregate.
voluuid (STRING): Volume UUID.
keyid (STRING): Encryption Key ID.
buftreeid (LONGINT): Buftreeid.
cp_count (INT): Consistency Point (CP) at which this volume is created.

wafl.vvol.delete.metadata.recrm

Severity

NOTICE

Description

This message occurs when the system cannot remove volume metadata during a volume delete operation after moving it to recycle bin.

Corrective Action

(None).

Syslog Message

Could not remove volume %s%s%s metadata. Error: %d.

Parameters

vol (STRING): Name of the flexible volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name alone is insufficient.
errorCode (INT): Error number.

wafl.vvol.delete.metadata.rename

Severity

NOTICE

Description

This message occurs when the system cannot rename volume metadata during a volume delete operation.

Corrective Action

(None).

Syslog Message

Could not rename volume %s%s%s metadata. Error: %d.

Parameters

vol (STRING): Name of the flexible volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name alone is insufficient.
errorCode (INT): Error number.

wafl.vvol.delete.metadata.rm

Severity

NOTICE

Description

This message occurs when the system cannot remove volume metadata during a volume delete operation. The system will retry removing the metadata during any operation that brings the containing aggregate online(for example, takeover).

Corrective Action

(None).

Syslog Message

Cannot remove volume %s%s%s metadata. Error: %s(%d).

Parameters

vol (STRING): Name of the flexible volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name alone is insufficient.
reason (STRING): Reason for the failure.
errorCode (INT): Error number.

wafl.vvol.delete.recovered

Severity

INFORMATIONAL

Description

This event occurs when a flexible volume that was queued for delete is recovered.

Corrective Action

(None).

Syslog Message

Volume %s%s%s%s recovered.

Parameters

owner (STRING): String indicating the owner of the affected volume.
vol (STRING): Name of the flexible volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name alone is insufficient.

wafl.vvol.destroyed

Severity

NOTICE

Description

This message occurs when a flexible volume is destroyed.

Corrective Action

(None).

Syslog Message

Volume %s%s%s%s destroyed.

Parameters

owner (STRING): String indicating the owner of the affected volume.
vol (STRING): Name of the flexible volume.
app (STRING): Application UUID.
volident (STRING): Unique identifier for the volume when the volume name alone is insufficient.
vol_btid (LONGINT): Internal buftree identifier for the volume.

wafl.vvol.encrypted.offline

Severity

INFORMATIONAL

Description

This message occurs when an encrypted virtual volume is taken offline.

Corrective Action

(None).

Syslog Message

Volume '%s%s%s' is encrypted and was taken offline.

Parameters

name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.

wafl.vvol.excessive.contsize

Severity

ERROR

Description

This message occurs when a flexible volume container that exceeds the maximum size supported on the running platform is detected. This event can be encountered after a headswap to a platform supporting a lower maximum capacity.

Corrective Action

Back up the dataset in the volume as soon as possible and take the volume offline. Alternatively, consider a system or hardware upgrade to a platform that supports a higher maximum capacity.

Syslog Message

Volume '%s' exceeded the maximum container capacity supported on this platform (container blkcnt=%llu, maxlimit=%llu). Back up the dataset and take the volume offline as soon as possible.

Parameters

vol (STRING): The volume name
blkcount (LONGINT): The total blocks capacity of the volume container
maxblkcount (LONGINT): The maximum container capacity supported on the platform

wafl.vvol.excessive.volsize

Severity

ERROR

Description

This message occurs when a flexible volume that exceeds the maximum size supported on the running platform is detected. This event can be encountered after a headswap to a platform supporting a lower maximum capacity.

Corrective Action

If possible, shrink the flexible volume using the 'vol size' command. If not, back up the dataset in the volume as soon as possible and take the volume offline. Alternatively, consider a system or hardware upgrade to a platform that supports a higher maximum capacity.

Syslog Message

Volume '%s' exceeded the maximum volume size supported on this platform (nominal blkcnt=%llu, maxlimit=%llu). Shrink the volume or back up the dataset and take the volume offline as soon as possible.

Parameters

vol (STRING): Volume name
blkcount (LONGINT): Total block count of the volume.
maxblkcount (LONGINT): Maximum block count supported on the platform.

wafl.vvol.invalid.DSID

Severity

ERROR

Description

This message occurs when ONTAP® finds a volume with an invalid data set identifier (DSID). This might have occurred as a result of disk corruption.

Corrective Action

Contact NetApp technical support to have a new DSID assigned to the volume as soon as possible.

Syslog Message

Volume '%s%s%s' has an invalid DSID (0x%x).

Parameters

vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
dsid (LONGINT): Data set identifier.

wafl.vvol.move.encrypted

Severity

NOTICE

Description

This message occurs when an encrypted destination volume is created as part of volume move operation.

Corrective Action

(None).

Syslog Message

%s encrypted volume %s%s%s is created on aggregate %s as part of a volume move operation.

Parameters

key_type (STRING): This Indicates encryption type of this volume is NetApp Aggregate Encryption (NAE) or NetApp Volume Encryption (NVE).
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.
aggr (STRING): Name of the containing aggregate.
voluuid (STRING): Volume UUID.
keyid (STRING): Encryption Key ID.
buftreeid (LONGINT): Buftreeid.
cp_count (INT): Consistency Point (CP) at which this volume is created.

wafl.vvol.offline

Severity

INFORMATIONAL

Description

This message indicates when a virtual volume is taken offline.

Corrective Action

(None).

Syslog Message

Volume '%s%s%s' has been set temporarily offline

Parameters

name (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
instuuid (STRING): Volume Instance UUID

wafl.vvol.offline.err

Severity

NOTICE

Description

This event is issued if the system fail to set the raid label of the virtual volume when it's taken offline.

Corrective Action

(None).

Syslog Message

Error persistently transitioning volume %s%s%s from 'restricted' to 'offline', unable to update descriptor, error %d

Parameters

name (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
error (INT): The error code

wafl.vvol.offline.persist

Severity

INFORMATIONAL

Description

This message occurs when a flexible volume that was marked temporarily offline as part of the volume migration process is now marked persistently offline.

Corrective Action

(None).

Syslog Message

(None).

Parameters

name (STRING): Volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient.

wafl.vvol.online

Severity

INFORMATIONAL

Description

This event occurs when the state of flexible volume moves to the online state.

Corrective Action

(None).

Syslog Message

(None).

Parameters

vol (STRING): The name of the flexible volume
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
instuuid (STRING): Volume instance UUID

wafl.vvol.ownVserver.changed

Severity

INFORMATIONAL

Description

This message occurs when either a cluster repair tool changes the owning vserver of the volume, or when the volume is transitioned from being a node volume to a cluster volume or vice versa.

Corrective Action

(None).

Syslog Message

Volume '%s%s' owning vserver / name changed to '%s%s%s'.

Parameters

oldname (STRING): Original name of the volume.
oldownerIdent (STRING): Original vserver identifier.
newname (STRING): New name of the volume.
app (STRING): Application UUID.

newownerIdent (STRING): New vserver identifier.

wafl.vvol.renamed

Severity

INFORMATIONAL

Description

This message occurs when the administrator renames a flexible volume.

Corrective Action

(None).

Syslog Message

Volume '%s%s' renamed to '%s%s%s'.

Parameters

oldname (STRING): Original volume name.
volident1 (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.
newname (STRING): New volume name.
app (STRING): Application UUID.
volident2 (STRING): Unique identifier of the volume in cases where the volume name itself is insufficient.

wafl.vvol.restrict

Severity

INFORMATIONAL

Description

This event is issued to indicate a flexible volume has been restricted

Corrective Action

(None).

Syslog Message

(None).

Parameters

vol (STRING): The volume name
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
instuuid (STRING): Volume Instance UUID

wafl.vvol.vvlabel.error

Severity

ERROR

Description

This message occurs when the verification of the vvlabel fails on a flexible volume. This event provides all the information available in the vvlabel so that it can be used later, for recovery.

Corrective Action

Contact NetApp technical support.

Syslog Message

Cannot determine volume label information (%s). (Flexible volume with UUID '%s', unique ID '%d' on aggregate '%s' with raidtree ID '%s')

Parameters

err (STRING): Error string.
voluuid (STRING): UUID of the flexible volume as identified by the metadir.
id_in_aggr (INTHEX): Unique ID within the containing aggregate.
aggr_name (STRING): Containing aggregate name.
aggr_rtid (STRING): RAID tree ID of the aggregate.
version (INTHEX): vvlabel version.
mirror_flags (INTHEX): Mirror type flags.
vol_flags (INTHEX): Flags for the volume.
fsid (INTHEX): File system identifier for the volume.
clone_parent (INTHEX): 'id_in_aggr' value of the clone's parent volume.
base_snapid (INTHEX): Clone base snapshot ID.
vvuuid (STRING): UUID of the flexible volume as identified by the vvlabel.
vvol_type (INTHEX): Flexible volume's type.
dsid (LONGINTHEX): Volume data set identifier.
msid (LONGINTHEX): Volume master data set identifier.
owneruuid (STRING): UUID of the owning Vserver.
volname (STRINGARRAY): Volume name in raw hexadecimal format.

wafl.vvol.xfer.nospacedestErr

Severity

ERROR

Description

This message occurs when transfer to a destination flexible volume has fails because the aggregate that contains this volume is out of space.

Corrective Action

For non-ASA r2 platforms, increase space available in the aggregate by either adding disks or freeing space by deleting aggregate Snapshot copies, shrinking flexible volumes or moving flexible volumes to another aggregate. Ensure that there is sufficient space available in the aggregate (using the "df -A command") to accommodate the flexible volumes it contains. The "volume size" command may be used to obtain flexible volume sizes and also to grow or shrink them. For ASA r2 platforms, increase space in an aggregate by either adding disks to the cluster or freeing space by deleting data or Snapshot copies. To delete a Snapshot copy, use the "vserver consistency-group snapshot delete" command.

Syslog Message

Transfer to volume "%s%s%s" failed because the containing aggregate, "%s", is out of space.

Parameters

vol (STRING): The volume name
app (STRING): Application universal unique identifier(UUID)
volident (STRING): To uniquely identify the volume in cases where volume name itself is insufficient.
aggr (STRING): The aggregate name.

wafl.watch events

wafl.watch.cache.limit.near

Severity

INFORMATIONAL

Description

This message occurs when WAFL® "change notify" requests approach the size limit of the inode cache pool. This is caused by an excessive number of "change notify" requests being generated by the Server Message Block(SMB) server. If the maximum limit is reached and the limit is not increased, significant system performance degradation could occur.

Corrective Action

Contact Contact NetApp technical support. for assistance.

Syslog Message

Size of "change notify" requests in inode cache pool: %d, approaching the size limit: %d

Parameters

current_size (INT): Current size of the inode cache pool.
max_size (INT): Maximum size of the inode cache pool.

wafl.write events

wafl.write.fail.cifsSpace

Severity

ERROR

Description

This message occurs when a write to a file with CIFS-style space reservations fails due to a lack of space in the volume or aggregate.

Corrective Action

If the volume is a Flexvol® volume, and the volume guarantee is disabled, increase the amount of space available in the aggregate. Otherwise, increase the amount of space available in the volume.

Syslog Message

Write failed to file with CIFS space reservations due to lack of disk space in %s %s%s%s%s (%s%s, inode %u, offset %llu, len %u).

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
space_info (STRING): Text string specifying whether there is a guarantee.
guarantee_state (STRING): Text string describing the state of the guarantee on the volume (disabled, volume, file, and so on).

ino (INT): Inode number.
offset (LONGINT): Block offset.
len (INT): Length value.

wafl.write.fail.spcres

Severity

ERROR

Description

This message occurs when a write to a space-reserved file fails due to a lack of space in the volume or aggregate. This is possible when the fractional reserve is not 100% or the space guarantee of the containing flexible volume is not guaranteed.

Corrective Action

If the volume is a Flexvol® volume, and the volume guarantee is disabled, increase the amount of space available in the aggregate. Otherwise, increase the amount of space available in the volume.

Syslog Message

Write failed to file with space reservations due to lack of disk space in %s %s%s%s%s (%s%s, inode %u, offset %llu, len %u).

Parameters

type (STRING): Type of object (volume/aggregate).
owner (STRING): Volume owner.
vol (STRING): Volume name.
app (STRING): Application UUID.
volident (STRING): Unique identifier of the volume when the volume name by itself is insufficient.
space_info (STRING): Text string specifying whether there is a guarantee.
guarantee_state (STRING): Text string describing the state of the guarantee on the volume (disabled, volume, file, and so on).
ino (INT): Inode number.
offset (LONGINT): Block offset.
len (INT): Length value.

wafl.zombie events

wafl.zombie.susp.aggr.limit

Severity

NOTICE

Description

This message occurs when the aggregate encounters the zombie throttling limits during zombie delete processing for large number of file deletions.

Corrective Action

(None).

Syslog Message

WAFL® aggregate %s is experiencing zombie throttling possibly due to requests for large number of file deletions. This can be mitigated by a combination of a) reducing the load on the aggregate or b) issuing the

file deletion requests in smaller batches.

Parameters

aggrname (STRING): Name of the aggregate.

wafl.zombie.susp.vol.limit

Severity

NOTICE

Description

This message occurs when the volume encounters the zombie throttling limits during zombie delete processing for large number of file deletions.

Corrective Action

(None).

Syslog Message

WAFL® volume %s%s%s%s is experiencing zombie throttling possibly due to requests for large number of file deletions. This can be mitigated by a combination of a) reducing the load on the volume or b) issuing the file deletion requests in smaller batches.

Parameters

volowner (STRING): Owner of the volume.
volname (STRING): Name of the volume.
app (STRING): Application UUID.
volident (STRING): To uniquely identify the volume in cases where the volume name itself is insufficient. Consists of the Vserver name and UUID.

wafliron events

wafliron.summary events

wafIlron.summary.scanStatus

Severity

INFORMATIONAL

Description

This message occurs periodically when wafliron is running and its state is "starting" or "scanning". It reports wafliron summary scanning status.

Corrective Action

(None).

Syslog Message

Wafliron summary scan (%d%% done).

Parameters

percentage (INT): Wafliron summary scan completion percentage.

xfcvi events

xfcvi.attr events

xfcvi.attr.changed

Severity

NOTICE

Description

This message occurs when any of the xfcvi attributes changes.

Corrective Action

(None).

Syslog Message

FC-VI adapter: %s changed on port %s. %s

Parameters

attr_type (STRING): Attribute type.
port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.cm events

xfcvi.cm.timedout

Severity

NOTICE

Description

This message occurs when connection requests times out.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Connection request timedout on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.cross events

xfcvi.cross.connect.detected

Severity

ERROR

Description

This message occurs when the xfcvi driver detects a cross connection

Corrective Action

Check the xfcvi interconnect cabling at the local and remote nodes. xfcvi adapter ports xfcvi_device_0s and xfcvi_device_1s should not be connected to the same fabric. Contact NetApp technical support if the problem persists.

Syslog Message

FC-VI adapter: Cross Connection detected between local port %s and remote port %s. Local System ID = %llu, Remote System ID = %llu.

Parameters

lname (STRING): Local node's port name.
rname (STRING): Remote node's port name.
lsid (LONGINT): Local node's system id.
rsid (LONGINT): Remote node's system id.

xfcvi.disabled events

xfcvi.disabled

Severity

ALERT

Description

This message occurs when the HA interconnect card is disabled by the ic-type environment variable.

Corrective Action

Either remove the HA interconnect card from the controller or change the ic-type environment variable.

Syslog Message

FC-VI adapter: Port %s has been disabled because of the ic-type environment variable.

Parameters

port (STRING): xfcvi Interconnect NIC.

xfcvi.fcrenabled events

xfcvi.fcrEnabled

Severity

NOTICE

Description

This message occurs if Fiber Channel Routing (FCR) functionality is enabled on the system.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Fiber Channel Routing (FCR) is enabled.

Parameters

(None).

xfcvi.initfailed events

xfcvi.initFailed

Severity

ERROR

Description

This message occurs when the driver fails to initialize a FC-VI port.

Corrective Action

Reboot the controller. Contact NetApp technical support if the problem persists.

Syslog Message

FC-VI adapter: %s failed for port %s.

Parameters

operation (STRING): Type of operation
port (STRING): xfcvi Interconnect NIC.

xfcvi.invalid events

xfcvi.invalid.advertisement

Severity

ERROR

Description

This message occurs when xfcvi driver receives invalid advertisement.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid advertisement. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.invalid.sfp

Severity

ERROR

Description

This message occurs when the SFP (Small Form-Factor Pluggable) module of the Fibre Channel Virtual Interface (FC-VI) is invalid or incompatible.

Corrective Action

Replace the SFP with a compatible one.

Syslog Message

FC-VI adapter: Invalid SFP - Reason: %s on port %s.

Parameters

reason (STRING): Reason for the incompatibility.
port (STRING): Interconnect NIC.

xfcvi.link events

xfcvi.link.down

Severity

NOTICE

Description

This message occurs when the physical link of the Fibre Channel Virtual Interface (FC-VI) adapter goes down.

Corrective Action

1. Ensure that the FC-VI link has not been tampered with. 2. Verify that the physical status of the FC-VI adapter is "Up" by using the command "metrocluster interconnect adapter show". 3. If the configuration includes fabric switches, ensure that they are properly cabled and configured.

Syslog Message

(None).

Parameters

alertId (STRING): Alert ID.
alertingResource (STRING): Alerting resource unique name.
alertingResourceName (STRING): Alerting resource name.
possibleEffect (STRING): Possible effect for link transition.
probableCause (STRING): Probable cause of the event.

probableCauseDescription (STRING): Probable cause description of the event.
additionalInfo (STRING): Any additional information for the event.

xfcvi.link.up

Severity

NOTICE

Description

This message occurs when the physical link of the Fibre Channel Virtual Interface (FC-VI) adapter comes up.

Corrective Action

(None).

Syslog Message

(None).

Parameters

alertId (STRING): Alert ID.
alertingResource (STRING): Alerting resource unique name.

xfcvi.qlgc events

xfcvi.qlgc.async.event.overflow

Severity

ERROR

Description

This message occurs when total number of async events are overflowed.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s async event overflowed. Resetting the adapter.

Parameters

port (STRING): xfcvi Interconnect NIC.

xfcvi.qlgc.connErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter detects a connection error. The FC-VI driver will attempt to retry the connection.

Corrective Action

If this message repeats frequently, there may be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s detects connection error. FC-VI opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
opcode_str (STRING): xfcvi opcode.
opcode (INTHEX): xfcvi opcode.
qpname (STRING): QP name.
qpnum (INT): QP number.
systemID (LONGINT): Remote node's system ID.
info (STRING): Additional info.

xfcvi.qlgc.cpr.reset.cancelled

Severity

ERROR

Description

This message occurs when the CPR reset initiated by the FC-VI port got cancelled.

Corrective Action

Reboot the filer. If issue still persists then replace the xfcvi adapter.

Syslog Message

FC-VI adapter: CPR reset initiated by port %s got cancelled. Offlining the port.

Parameters

port (STRING): xfcvi Interconnect adapter.

xfcvi.qlgc.cpr.reset.failed

Severity

ERROR

Description

This message occurs when the CPR reset initiated by the FC-VI port fails.

Corrective Action

Reboot the filer. If issue still persists then replace the xfcvi adapter.

Syslog Message

FC-VI adapter: CPR reset initiated by port %s failed.

Parameters

port (STRING): xfcvi Interconnect adapter.

xfcvi.qlgc.cpr.reset.unsupported

Severity

ERROR

Description

This message occurs when the CPR reset is not supported by the adapter.

Corrective Action

Reboot the filer. If issue still persists then replace the xfcvi adapter.

Syslog Message

FC-VI adapter: CPR reset is not supported by port %s.

Parameters

port (STRING): xfcvi Interconnect adapter.

xfcvi.qlgc.FrameDiscardErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter firmware discards a received frame because of a receive frame error.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Discarded a received frame because of a receive frame error. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.hard.reset.failed

Severity

ERROR

Description

This message occurs when an FC-VI port's soft reset fails.

Corrective Action

If CPR reset is not supported in the platform, then reboot the filer to recover from this issue. If issue persists then replace the xfcvi adapter.

Syslog Message

FC-VI adapter: Hard reset failed at port %s.

Parameters

port (STRING): xfcvi Interconnect adapter.

xfcvi.qlgc.invalid.data

Severity

ERROR

Description

This message occurs when xfcvi driver receives invalid data from firmware.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid data. QP index = %d, completion status = %s(status code = %d), opcode = %s(%d), remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpnum (INT): QP index.
status (STRING): Completion status.
status_code (INT): Completion status code.
opcode_str (STRING): xfcvi opcode in string.
opcode (INT): xfcvi opcode.
systemID (LONGINT): Remote node's system Id.
info (STRING): Additional info.

xfcvi.qlgc.invalid.exch.address

Severity

ERROR

Description

This message occurs when xfcvi driver receives a response with invalid exchange address.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s received invalid exchange address for %s. QP name = %s, QP index = %d, expected exchange address = 0x%x, received exchange address = 0x%x. %s

Parameters

> **port** (STRING): xfcvi Interconnect NIC.
> **resp_type** (STRING): Response type.
> **qpname** (STRING): QP name.
> **qpnum** (INT): QP number.
> **exp_oxid** (INTHEX): Expected exchange address.
> **rcvd_oxid** (INTHEX): Received exchange address.
> **info** (STRING): Additional info.

xfcvi.qlgc.invalid.qp

Severity

> ERROR

Description

> This message occurs when xfcvi driver receives invalid QP index from firmware.

Corrective Action

> (None).

Syslog Message

> FC-VI adapter: Port %s received invalid QP. Received QP index = %d, completion status = %s(status code = %d), entry type = %s(entry code = %d). %s

Parameters

> **port** (STRING): xfcvi Interconnect NIC.
> **qpnum** (INT): QP index.
> **status** (STRING): Completion status.
> **status_code** (INT): Completion status code.
> **entry_type** (STRING): Request/Response entry type.
> **entry_code** (INT): Request/Response entry code.
> **info** (STRING): Additional info.

xfcvi.qlgc.invalid.response

Severity

> ERROR

Description

> This message occurs when xfcvi driver receives invalid response from firmware.

Corrective Action

> (None).

Syslog Message

> FC-VI adapter: Port %s received invalid response. %s. %s

Parameters

> **port** (STRING): xfcvi Interconnect NIC.
> **error_type** (STRING): Type of error.
> **info** (STRING): Additional info.

xfcvi.qlgc.ioErr

Severity

ERROR

Description

This message occurs when the FC-VI driver receives some IO error.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: xfcvi driver on port %s received IO error. Status = %s(status code = 0x%x), xfcvi opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): xfcvi opcode in string.
opcode (INTHEX): xfcvi opcode.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system ID.

xfcvi.qlgc.login.timedout

Severity

NOTICE

Description

This message occurs when port login request times out.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Remote port login timedout on port %s. Remote port id = 0x%x, Remote port handle = %d. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
portid (INTHEX): Remote port identifier.
porthandle (INT): Remote port handle.
info (STRING): Additional info.

xfcvi.qlgc.ls.reject

Severity

ERROR

Description

This message occurs when the xfcvi firmware rejects a link service.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link service = %s(code = %d), rejected on port %s. %s

Parameters

ls (STRING): Link service name.
ls_code (INT): Link service code.
port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.qlgc.mbox.cmd.pending

Severity

ERROR

Description

This message occurs when a mailbox command is pending for a long time.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Mailbox command '%s(code = 0x%x)' pending on port %s. %s

Parameters

cmd (STRING): Mailbox command.
cmd_code (INTHEX): Mailbox command code.
port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.qlgc.mbox.cmd.timedout

Severity

ERROR

Description

This message occurs when a mailbox command times out.

Corrective Action

(None).

xfcvi.qlgc.no.iu.buffer

Severity

ERROR

Description

This message occurs when the xfcvi firmware identifies no more incoming IU buffers in the free pool.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s doesn't have free IU buffer. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.qlgc.no.recv.buffer

Severity

ERROR

Description

This message occurs when the xfcvi firmware identifies no more receive buffers available for the incoming receive frames.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s doesn't have free receive buffer. QP name = %s, QP index = %d, Message ID = 0x%x. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
msg_id (INTHEX): Message id of the incoming message.
info (STRING): Additional info.

xfcvi.qlgc.oodErr

Severity

ERROR

Description

This message occurs when the FC-VI driver receives out of order completions.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: xfcvi driver on port %s receives out of order completions. xfcvi opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
opcode_str (STRING): xfcvi opcode in string.
opcode (INTHEX): xfcvi opcode.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system ID.

xfcvi.qlgc.PCIErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter firmware encounters a PCI error because it cannot write a frame to host memory.

Corrective Action

(None).

Syslog Message

FC-VI adapter: PCI error while writing a frame to host memory. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.port.reset

Severity

ERROR

Description

This message occurs when a xfcvi port resets.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Resetting the port %s. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
reason (STRING): Reason for port reset.

xfcvi.qlgc.qp.create.err

Severity

ERROR

Description

This message occurs when QP creation fails.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Failed to create QP on port %s. Requested QP index = %d, completion status = %s(status code = %d). %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpnum (INT): QP index.
status (STRING): Completion status.
status_code (INT): Completion status code.
info (STRING): Additional info.

xfcvi.qlgc.qp.destroy.failed

Severity

ERROR

Description

This message occurs when the QP destroy request failed.

Corrective Action

(None).

FC-VI adapter: QP destroy failed on port %s. QP index = %d. %s

Parameters

> **port** (STRING): xfcvi Interconnect NIC.
> **qpnum** (INT): QP index.
> **info** (STRING): Additional info.

xfcvi.qlgc.qpErr

Severity

> ERROR

Description

> This message occurs when the FC-VI driver receives a QP error from the Firmware. The FC-VI driver will attempt to retry the connection.

Corrective Action

> If this message repeats frequently, there may be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

> FC-VI adapter: xfcvi driver on port %s received QP Error. QP name = %s, QP index = 0x%x, VI state = %s(state code = 0x%x), sub-error = %s(error code = 0x%x). Remote node's system id = %llu. This error has occurred %d times. %s

Parameters

> **port** (STRING): Interconnect Adapter.
> **qpname** (STRING): QP name.
> **qpnum** (INTHEX): QP number.
> **state_str** (STRING): QP state.
> **state** (INTHEX): QP state code.
> **suberror** (STRING): Sub-error.
> **code** (INTHEX): Sub-error code.
> **system_id** (LONGINT): Remote node's system ID.
> **errcnt** (INT): Number of times QP async error was encountered.
> **info** (STRING): Additional info.

xfcvi.qlgc.rcvd.invalid.iu.buffer

Severity

> ERROR

Description

> This message occurs when the FC-VI adapter receives invalid information unit buffer.

Corrective Action

> No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

FC-VI adapter: Port %s received invalid IU buffer. Status = %s(status code = 0x%x), xfcvi opcode = %s(0x%x), QP name = %s, QP index = %d, buffer handle = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): xfcvi opcode in string.
opcode (INTHEX): xfcvi opcode.
qpname (STRING): QP name.
qpnum (INT): QP number.
bufhdl (INT): Buffer handle.
systemID (LONGINT): Remote node's system ID.
info (STRING): Additional info.

xfcvi.qlgc.receive.error

Severity

ERROR

Description

This message occurs when the xfcvi firmware detects an error in the received frame.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Received bad frame on port %s. Mailbox-1 = %d, Mailbox-2 = %d. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
mbox1 (INT): Content of mailbox-1.
mbox2 (INT): Content of mailbox-2.
info (STRING): Additional info.

xfcvi.qlgc.received.disconnect

Severity

NOTICE

Description

This message occurs when xfcvi driver receives disconnect request from partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Disconnect request received on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.received.reject

Severity

NOTICE

Description

This message occurs when xfcvi driver receives connection reject from partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Connect request rejected on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.recvIUErr

Severity

ERROR

Description

This message occurs when the FC-VI adapter receives some error in received information unit.

Corrective Action

No corrective action is required. The driver internally resets the adapter if required. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s received IU error. Status = %s(status code = 0x%x), xfcvi opcode = %s(0x%x), QP name = %s, QP index = %d, buffer handle = %d, Remote node's system id = %llu.

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code.
opcode_str (STRING): xfcvi opcode in string.
opcode (INTHEX): xfcvi opcode.

qpname (STRING): QP name.
qpnum (INT): QP number.
bufhdl (INT): Buffer handle.
systemID (LONGINT): Remote node's system ID.

xfcvi.qlgc.regDumped

Severity

NOTICE

Description

This message occurs when the xfcvi driver saves a diagnostic dump in a file.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Diagnostic dump for port %s saved to file %s.

Parameters

port (STRING): xfcvi Interconnect NIC.
filename (STRING): File to which the diagnostic dump was saved.

xfcvi.qlgc.RespFrameErr

Severity

ERROR

Description

This message occurs when the adapter firmware sends a response frame with the error bit set.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Firmware sent a response with the error bit set. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.risc.paused

Severity

ERROR

Description

This message occurs when xfcvi RISC is paused.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Port %s detected a RISC pause error. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.qlgc.rmt.link.down

Severity

NOTICE

Description

This message occurs when xfcvi driver lost link to partner port.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link to partner node over port %s is down. Partner port id = 0x%x, partner node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
port_id (INTHEX): Partner port id.
system_id (LONGINT): Partner node's system id.
info (STRING): Additional info.

xfcvi.qlgc.rmt.link.up

Severity

NOTICE

Description

This message occurs when xfcvi driver gets link to partner port.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Link to partner node over port %s is up. Partner port id = 0x%x, partner node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
port_id (INTHEX): Partner port id.
system_id (LONGINT): Partner node's system id.
info (STRING): Additional info.

xfcvi.qlgc.sendIUError

Severity

ERROR

Description

This message occurs when the FC-VI adapter fails to send an information unit.

Corrective Action

No corrective action is required. The driver internally retries. However, if you see this message frequently, there might be an issue with the FC fabric or the adapter. Contact NetApp technical support.

Syslog Message

FC-VI adapter: Port %s sendIU status = %s(status code = 0x%x), xfcvi opcode = %s(0x%x), QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): Interconnect NIC.
status_str (STRING): Completion status in string.
status (INTHEX): Completion status code in hex.
opcode_str (STRING): xfcvi opcode in string.
opcode (INTHEX): xfcvi opcode in hex.
qpName (STRING): QP name.
qpIndex (INT): QP number.
systemID (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.sent.disconnect

Severity

NOTICE

Description

This message occurs when xfcvi driver sends disconnect request to remote partner.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Disconnect request sent on port %s. QP name = %s, QP index = %d, Remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qpname (STRING): QP name.
qpnum (INT): QP index.

system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.soft.reset.failed

Severity

ERROR

Description

This message occurs when an FC-VI port's soft reset fails.

Corrective Action

None.

Syslog Message

FC-VI adapter: Soft reset failed at port %s.

Parameters

port (STRING): xfcvi Interconnect adapter.

xfcvi.qlgc.system.error

Severity

ERROR

Description

This message occurs when xfcvi driver receives system error from xfcvi firmware.

Corrective Action

No corrective action is required. The driver internally resets the adapter. However, if you see this message frequently, there might be an issue with the adapter/firmware. Contact NetApp technical support.

Syslog Message

FC-VI adapter: System Error on port %s. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
info (STRING): Additional info.

xfcvi.qlgc.TimeOutErr

Severity

ERROR

Description

This message occurs when the adapter firmware cannot send a request.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Firmware could not send a request. Port %s, QP name = %s, QP index = %d, exchange ID 0x%x, address offset 0x%x, remote node's system id = %llu. %s

Parameters

port (STRING): xfcvi Interconnect NIC.
qp_name (STRING): QP name.
qp_index (INT): QP number.
exchange_id (INTHEX): Exchange ID.
address (INTHEX): Address offset of the last good frame.
system_id (LONGINT): Remote node's system id.
info (STRING): Additional info.

xfcvi.qlgc.transfer.error

Severity

ERROR

Description

This message occurs when the xfcvi firmware detects a transfer error.

Corrective Action

(None).

Syslog Message

FC-VI adapter: %s transfer error on port %s. Affected queue number = %d. %s

Parameters

trans_type (STRING): Transfer type.
port (STRING): xfcvi Interconnect NIC.
queue_num (INT): Queue number.
info (STRING): Additional info.

xfcvi.qlgc_regdumpfailed events

xfcvi.qlgc_regDumpFailed

Severity

NOTICE

Description

This message occurs when the HA interconnect driver could not save a diagnostic dump.

Corrective Action

(None).

Syslog Message

FC-VI adapter: Failed to save diagnostic dump for port %s. %s.

Parameters

> **port** (STRING): xfcvi Interconnect NIC.
> **reason** (STRING): Reason for the failure.

xfcvi.unsupported events

xfcvi.unsupported.config

Severity

> ERROR

Description

> This message occurs when a network adapter port behavior type is set to use FC-VI on a platform that has not been validated for its use and is therefore unsupported.

Corrective Action

> Change the port behavior type to a value other than "FC-VI". Use the "system hardware unified-connect show" command to view network adaptor port information, including the current behavior type. Use the "system hardware unified-connect modify" command to change the network adapter port behavior type.

Syslog Message

> FC-VI port behavior type not supported on network adapter port %s.

Parameters

> **port** (STRING): The network adapter port whose behavior type is set to use FC-VI.

xfcvi.update events

xfcvi.update.link.state

Severity

> NOTICE

Description

> This message occurs when there is a change in physical link state of the Fibre Channel Virtual Interface (FC-VI) adapter.

Corrective Action

> (None).

Syslog Message

> FC-VI adapter: Physical link is %s on port %s.

Parameters

> **link_state** (STRING): New link state.
> **port** (STRING): Interconnect NIC.

xinetd events

xinetd.hit events

xinetd.hit.cps.limit

Severity

ERROR

Description

This message occurs when the rate of incoming network connections for a service exceeds the maximum allowed rate. The service is temporarily suspended and restarted after a configured wait time. Many such connection attempts can potentially disallow other users from logging in to the storage system, causing a Denial of Service (DOS) attack.

Corrective Action

Reduce the rate at which the network connections are issued.

Syslog Message

Number of incoming network connections exceeded the configured limit of %d connections per second for the service %s. This service will be stopped and restarted after %d seconds.

Parameters

connections (INT): Maximum number of network connections allowed to access the service per second.
service (STRING): Service invoked by xinetd.
seconds (INT): Number of seconds xinetd must wait before reenabling the service.

xinetd.hit.instances.limit

Severity

ERROR

Description

This message occurs when the maximum number of SSH or Telnet requests that can be fulfilled simultaneously is reached. After the limit is reached, no new SSH or Telnet requests are accepted.

Corrective Action

Reduce the number of SSH or Telnet connections attempted simultaneously.The storage administrator can monitor and terminate excessive sessions, if necessary, using the security session "kill-cli" command.

Syslog Message

Maximum number of simultaneous incoming network connections exceeded the configured limit of %d connections for the service %s.

Parameters

instances (INT): Maximum number of SSH or Telnet requests that can be fulfilled simultaneously.
service (STRING): Service invoked by xinetd daemon.

xinetd.hit.per.source.limit

Severity

ERROR

Description

This message occurs when the maximum number of incoming network connections per source IP address for a service is reached. New connection requests from this source IP address for the service are rejected until the existing connections are terminated. Many such connection attempts could potentially disallow other users from logging in to the storage system, causing a Denial of Service (DOS) attack.

Corrective Action

If the remote host is retrying the network connection repeatedly, block the remote host by adding its IP address to the deny list using the "firewall policy" command.

Syslog Message

Maximum number of network connections of %d received from the remote host %s for the service %s.

Parameters

limit (INT): Maximum number of network connections for a service per source IP address.
ipaddress (STRING): IP address of the remote host that triggered maximum number of network connections of a service.
service (STRING): Service invoked by xinetd.

xyz events

zapi events

zapi.killed events

zapi.killed

Severity

NOTICE

Description

This message occurs when ZAPI Socket Manager (ZSM) terminates and no longer offers a connection on which a client can deliver Zephyr API (ZAPI) requests.

Corrective Action

(None).

Syslog Message

ZAPI Socket Manager (ZSM) terminated.

Parameters

(None).

zapi.retired events

zapi.retired.usageDetected

Severity

NOTICE

Description

This message occurs when ONTAPI (ZAPI) is used for ONTAP data storage management. ONTAPI (ZAPI) is approaching end of availability. Search your vendor's support site for information about the end of availability for ONTAPI and transition to the ONTAP REST API.

Corrective Action

Ensure that all ONTAP data storage management functions using ONTAPI (ZAPI) have transitioned to ONTAP REST API.

Syslog Message

ONTAPI (ZAPI), which is approaching end of availability, was last used from source address: %s, for ONTAP data storage management.

Parameters

sourceAddress (STRING): The source address from which the last ONTAPI (ZAPI) call was made.

zapi.sf events

zapi.sf.up.ready

Severity

INFORMATIONAL

Description

This message occurs when the M-host layer is operational and has notified the high-availability (HA) subsystem, which can then proceed with certain storage failover operations, such as giveback.

Corrective Action

(None).

Syslog Message

ZAPI: system node stable after startup.

Parameters

(None).

zapi.snapshot events

zapi.snapshot.success

Severity

NOTICE

Description

This event occurs when an asynchronous Snapshot(tm) copy is created successfully through the Zephyr API (ZAPI) interface.

Corrective Action

(None).

Syslog Message

Asynchronous creation of Snapshot copy named %s in volume %s was successful. The Snapshot copy was created %d milliseconds after the request was received by ZAPI.

Parameters

snapshot (STRING): Name of the Snapshot copy.
volume (STRING): Volume name in which the Snapshot copy was created.
time (INT): Duration, in milliseconds, that it took to create the Snapshot copy.

zrto events

zrto.lif events

zrto.lif.upgrade.failed

Severity

ERROR

Description

This message occurs when ONTAP® fails to re-create a previously deleted LIF during an upgrade. The LIF must be re-created manually.

Corrective Action

Attempt the failed command again. If the problem persists, contact NetApp technical support.

Syslog Message

Failed to re-create a LIF during upgrade. Command: "network interface create %s". Reason: %s.

Parameters

command_arguments (STRING): Arguments of the command that failed.
error (STRING): Error that LIF creation encountered.

zsm events

zsm.send events

zsm.send.request.timeout

Severity

ERROR

Description

This message occurs when a socket timeout occurs on an intracluster Manage ONTAP® API request to an internal ONTAPI® server.

Corrective Action

Check your network configuration and other potential error conditions, such as the node being down or too busy. Correct the error condition and retry the operation.

Syslog Message

An intracluster Manage ONTAP API request timed out while waiting for an internal ONTAPI server response.

Parameters

(None).

zsm.socket events

zsm.socket.listener.create

Severity

NOTICE

Description

The event posted when the listener socket for the ZAPI Socket Manager (ZSM) service cannot be created.

Corrective Action

No corrective action is possible. ZSM service is not available without a reboot.

Syslog Message

%s initialization failure; cannot create listener socket; error code %d (%s). ZSM service is inaccessible.

Parameters

zsmstring (STRING): The string describing the type of socket that was not created; currently ZSM.
errorcode (INT): The error code (errno) returned from the failed ZSM listener socket create call.
errorstring (STRING): The character string translation of the error code (errno) returned from the failed ZSM listener socket create call.

zsm.socket.listener.setoption

Severity

NOTICE

Description

This event is posted when the listener socket for the ZAPI Socket Manager (ZSM) service cannot be properly initialized.

Corrective Action

No corrective action is possible. ZSM service is not available without a reboot.

Syslog Message

ZSM initialization failure; cannot set listener socket option %s at level %s; error code %d (%s). ZSM service is inaccessible.

Parameters

socketoption (STRING): The socket option value that failed.
socketlevel (STRING): The socket option level that failed.
errorcode (INT): The error code (errno) returned from the failed option set call.
errorstring (STRING): The character string translation of the error code (errno) returned from the failed option set call.

zsm.socket.output.event

Severity

INFORMATIONAL

Description

This event occurs when the socket for the ZAPI Socket Manager (ZSM) service cannot send output data.

Corrective Action

This message usually means that a network error occurred or that the client closed its connection to the storage appliance. Typically, there is no corrective action that you can be take. However, if the destination is available check whether you can examine the storage appliance's and client's event logs to see if networking errors were reported.

Syslog Message

(None).

Parameters

destination (STRING): Client that was to receive the output. If the client is disconnected and its IP address is not available, the text "Not known" is printed.
errorcode (INT): Error code (errno) returned from the failed write call.
errorstring (STRING): The character string translation of the errno returned from the failed socket write call.

ztl events

ztl.smap events

ztl.smap.online.status

Severity

NOTICE

Description

This message occurs when the specified partition on a SSD-ZNS drive could not be onlined due to internal S/W or device error.

Corrective Action

(None).

Syslog Message

Disk %s partition %d (first zone=%d, number of zones=%d) online operation failed. HBA status: %d, NVMe status (type: %d, code: %d).

Parameters

disk (STRING): Disk name.
partition (INT): SMap Partition number.
start_zone (INT): SMAP start logical zone.
num_zones (INT): Number of logical zones in the SMAP instance.
ha_err_status (INT): Host Adapter error status.
nvme_err_code_type (INT): NVME error code type.
nvme_err_code (INT): NVME error for the specific NVME error code type.

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