



sfo events

ONTAP EMS reference

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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.

Syslog Message

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. 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. Then retry giveback by using 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.reassignnpartner 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 inaccessible 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).

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