NetApp

vsa events

ONTAP 9.14.1 EMS reference

NetApp
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Table of Contents

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

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.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.