



nvme events

ONTAP EMS reference

NetApp
November 19, 2025

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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 (LONGINTEX): 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.cmds events

nvme.cmds.timedout

Severity

NOTICE

Description

This message occurs when an NVMe controller detects one or more commands that did not have a command completion response in the allotted time frame.

Corrective Action

There might be occasional occurrences of this message. However, if the frequency is more than twice a day corrective action might be needed. Contact your hypervisor provider if this issue persists. This might indicate undersized storage in terms of allowed operations per second.

Syslog Message

The NVMe controller of "%s" has detected %d commands that have timed out. Command recovery action: %s.

Parameters

controller_name (STRING): Name of the NVMe controller that the event is detected on.

commands (INT): The number of commands that have not completed in the allotted time for this event.

action_taken (STRING): The action taken to recover and retry the commands.

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 (LONGINTEX): 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 (LONGINTEX): 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 initialize.

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.

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