



## **nvme events**

### ONTAP EMS reference

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# nvme events

## nvme.boot events

### nvme.boot.fw.update.complete

#### Severity

ALERT

#### Description

This message occurs when the NVMe boot device firmware has been updated, but requires a system reboot or takeover/giveback to activate the new firmware.

#### Corrective Action

Reboot or perform a takeover/giveback of the system as soon as possible.

#### Syslog Message

The NVMe boot device has completed the firmware update. The system requires a reboot or takeover/giveback to activate new firmware.

#### Parameters

(None).

## 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.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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