



nvme events

ONTAP EMS reference

NetApp
November 20, 2025

Table of Contents

- nvme events 1
 - nvme.boot events 1
 - nvme.boot.fw.update.complete 1
 - nvme.card events 1
 - nvme.card.degraded 1
 - nvme.card.removed 2
 - nvme.fw events 2
 - nvme.fw.activate.complete 2
 - nvme.fw.activate.failed 2
 - nvme.fw.program.failed 3
 - nvme.link events 3
 - nvme.link.disabled.error 3
 - nvme.link.error 4
 - nvme.ssd events 4
 - nvme.ssd.attach.error 4

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.

Copyright information

Copyright © 2025 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.