



**Hewlett Packard**  
Enterprise

# **HPE 3PAR OS 3.3.1 MU2 Patch 48**

## **Release Notes**

### **Abstract**

This release notes document is for 3.3.1 MU2 P48.

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# Purpose

The HPE 3PAR patch 48 further improves error handling for certain drive models.

❗ **IMPORTANT:** See the **HPE 3PAR OS and Service Processor Software Update Guide (HPE 3PAR OS 3.3.1 HPE 3PAR Service Processor 5.x)** for instructions on updating your specific software.

## Guidance

This patch is critical when the following drive models are installed.

Affected Drive Models		
AREX0400S5xnNTRI	AREX3840S5xnFTRI	AREA0920S5xnNTRI
AREX0480S5xnNTRI	AREA7680S5xnNTRI	AREA1920S5xnNTRI
AREX0920S5xnNTRI	AREA15T4S5xnNTRI	AREA3840S5xnNTRI
AREX1920S5xnNTRI	AREA7680S5xnFTRI	AREA0920S5xnFTRI
AREX3840S5xnNTRI	AREA15T4S5xnFTRI	AREA1920S5xnFTRI
AREX0920S5xnFTRI	AREA0400S5xnNTRI	AREA3840S5xnFTRI
AREX1920S5xnFTRI	AREA0480S5xnNTRI	

❗ **IMPORTANT:** Install 3.3.1 MU2 P39 before installing this patch on arrays with File Persona configured, or if planning to configure File Persona. Otherwise, File Persona commands, including those used for management of NFS shares, may not function as expected.

## Prerequisites

- Minimum Service Processor required: 5.0.3 + latest SP Patch.
- Base OS: 3.3.1 MU2. See the Requires field in the Patch details.

## Patch details

Patch ID: P48

Synopsis: Further improves error handling for certain drive models

Date: December 11, 2018, 22:53:16 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-libcli, tpd-sysmgr, tpd-prerevert

Obsoletes: OS-3.3.1.410-P46

Requires: OS-3.3.1.410-MU2

Build Version: 3.3.1.497

Patches Included: OS-3.3.1.410-P32, OS-3.3.1.410-P40, OS-3.3.1.410-P45

Patches Partially Superseded: OS-3.3.1.410-P32, OS-3.3.1.410-P40, OS-3.3.1.410-P45

Patches Obsolete by Combination: None.

Supports Revert: Yes

Notes: Description of the obsoleted patches:

Patch ID: P46

Synopsis: Improves array cluster validation process

Date: December 10, 2018, 15:30:51 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: None

Requires: OS-3.3.1.410-MU2,OS-3.3.1.410-P30,OS-3.3.1.410-P32,OS-3.3.1.410-P40,OS-3.3.1.410-P45

Build Version: 3.3.1.496

Notes:

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**NOTE:**

Hewlett Packard Enterprise recommends installing patches in the same sequence as they are released, unless instructed otherwise.

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## Modifications

HPE 3PAR patch 48 addresses the following issues:

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**Issue ID:** 254138

**Issue summary:** The array unexpectedly restarts while processing inter node link error.

**Platforms affected:** All StoreServ

**Affected software versions:** 3.2.2, 3.3.1 GA - MU3

**Issue description:** The controller node is unable to participate in cluster validation when an inter node link error occurs. This condition leads to an unexpected array restart.

**Symptoms:** Unexpected controller node restart.

**Conditions of occurrence:** Normal operation.

**Impact:** High

**Customer circumvention:** None.

**Customer recovery steps:** None.

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**Issue ID:** 254569, 252333, 254570, 254572, 254573

**Issue summary:** Certain drive models may experience an internal reset while processing writes.

**Platforms affected:** All StoreServ

**Affected software versions:** 3.2.1 MU3-MU5, 3.2.2 GA-MU6, 3.3.1 GA-MU2

**Issue description:** Further improves error handling within the HPE 3PAR OS for certain drive models to avoid data inconsistency issues when the affected drives perform an internal reset.

**Symptoms:** Data inconsistency is encountered on the host.

**Conditions of occurrence:** Normal operation.

**Impact:** High

**Customer circumvention:** None.

**Customer recovery steps:** None.

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## Affected components

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Component	Version
System Manager	3.3.1.497 (P48)
TPD Kernel Patch	3.3.1.497 (P48)

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**NOTE:** Applying an HPE 3PAR OS patch can cause a restart of the affected OS components. This restart is an expected behavior, which will generate events and alerts. The system continues to serve data, but existing CLI or SSMC sessions could be interrupted.

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## Verification

The installation of Patch 48 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that Patch 48 is listed:

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**\$ showversion -a -b**

Release version 3.3.1.410 (MU2)

Patches: P32,P40,P45,P48

Component Name	Version
CLI Server	3.3.1.482 (P45)
CLI Client	3.3.1.482
<b>System Manager</b>	<b>3.3.1.497 (P48)</b>
Kernel	3.3.1.410 (MU2)
TPD Kernel Code	3.3.1.410 (MU2)
<b>TPD Kernel Patch</b>	<b>3.3.1.497 (P48)</b>
CIM Server	3.3.1.410 (MU2)
WSAPI Server	3.3.1.410 (MU2)
Console Menu	3.3.1.410 (MU2)
Event Manager	3.3.1.482 (P45)
Internal Test Tools	3.3.1.410 (MU2)
LD Check Tools	3.3.1.410 (MU2)
Network Controller	3.3.1.410 (MU2)
Node Disk Scrubber	3.3.1.410 (MU2)
PD Scrubber	3.3.1.410 (MU2)
Per-Node Server	3.3.1.482 (P45)
Persistent Repository	3.3.1.410 (MU2)
Powerfail Tools	3.3.1.410 (MU2)
Preserved Data Tools	3.3.1.410 (MU2)
Process Monitor	3.3.1.410 (MU2)
Software Updater	3.3.1.467 (P40)
TOC Server	3.3.1.410 (MU2)
VV Check Tools	3.3.1.410 (MU2)
Upgrade Check Scripts	181001.U016
File Persona	1.4.2.40-20171006 (MU2)
SNMP Agent	1.10.0
SSH	6.0p1-4+deb7u5
VASA Provider	3.0.17 (MU2)
Firmware Database	3.3.1.410 (MU2)
Drive Firmware	3.3.1.410 (MU2)
UEFI BIOS	05.02.54 (MU2)
MCU Firmware (OKI)	4.8.60 (MU2)
MCU Firmware (STM)	5.3.17 (MU2)
Cage Firmware (DC1)	4.44 (MU2)
Cage Firmware (DC2)	2.64 (MU2)
Cage Firmware (DC3)	08 (MU2)
Cage Firmware (DC4)	2.64 (MU2)
Cage Firmware (DCN1)	4082 (MU2)
Cage Firmware (DCN2)	4082 (MU2)
Cage Firmware (DCS1)	4082 (MU2)
Cage Firmware (DCS2)	4082 (MU2)
Cage Firmware (DCS5)	2.79 (MU2)
Cage Firmware (DCS6)	2.79 (MU2)
Cage Firmware (DCS7)	4082 (MU2)
Cage Firmware (DCS8)	4082 (MU2)
QLogic QLA4052C HBA Firmware	03.00.01.77 (MU2)
QLogic QLE8242 CNA Firmware	04.15.27
QLogic 260x HBA FC Firmware	174.03.70
QLogic 27xx/268x HBA FC Firmware	174.03.70

QLogic 83xx HBA FCoE Firmware	08.01.05
QLogic 8300 HBA iSCSI Firmware	05.07.35
Emulex LP11002 HBA Firmware	02.82.x10
Emulex LPe12002 HBA Firmware	02.10.x03
Emulex LPe12004 HBA Firmware	02.10.x03
Emulex LPe16002 HBA Firmware	11.1.220.10
Emulex LPe16004 HBA Firmware	11.1.220.10
3PAR FC044X HBA Firmware	200A8
LSI 9201-16e HBA Firmware	17.11.03
LSI 9205-8e HBA Firmware	17.11.03
LSI 9300-8e HBA Firmware	10.10.01

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**NOTE:** When displaying the `showversion` command output from the SP, the CLI Client version is static in the SP code and may differ from the output from any other system.

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# Websites

## **General websites**

**Hewlett Packard Enterprise Information Library**

**[www.hpe.com/info/EIL](http://www.hpe.com/info/EIL)**

**Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix**

**[www.hpe.com/storage/spock](http://www.hpe.com/storage/spock)**

**Storage white papers and analyst reports**

**[www.hpe.com/storage/whitepapers](http://www.hpe.com/storage/whitepapers)**

For additional websites, see **[Support and other resources](#)**.



## Support and other resources

### Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:  
<http://www.hpe.com/assistance>
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:  
<http://www.hpe.com/support/hpesc>

#### Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

### Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

#### **Hewlett Packard Enterprise Support Center**

[www.hpe.com/support/hpesc](http://www.hpe.com/support/hpesc)

#### **Hewlett Packard Enterprise Support Center: Software downloads**

[www.hpe.com/support/downloads](http://www.hpe.com/support/downloads)

#### **Software Depot**

[www.hpe.com/support/softwaredepot](http://www.hpe.com/support/softwaredepot)

- To subscribe to eNewsletters and alerts:  
[www.hpe.com/support/e-updates](http://www.hpe.com/support/e-updates)
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:  
[www.hpe.com/support/AccessToSupportMaterials](http://www.hpe.com/support/AccessToSupportMaterials)



**IMPORTANT:** Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

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## Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

<http://www.hpe.com/support/selfrepair>

## Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

### Remote support and Proactive Care information

#### HPE Get Connected

[www.hpe.com/services/getconnected](http://www.hpe.com/services/getconnected)

#### HPE Proactive Care services

[www.hpe.com/services/proactivecare](http://www.hpe.com/services/proactivecare)

#### HPE Proactive Care service: Supported products list

[www.hpe.com/services/proactivecaresupportedproducts](http://www.hpe.com/services/proactivecaresupportedproducts)

#### HPE Proactive Care advanced service: Supported products list

[www.hpe.com/services/proactivecareadvancedsupportedproducts](http://www.hpe.com/services/proactivecareadvancedsupportedproducts)

### Proactive Care customer information

#### Proactive Care central

[www.hpe.com/services/proactivecarecentral](http://www.hpe.com/services/proactivecarecentral)

#### Proactive Care service activation

[www.hpe.com/services/proactivecarecentralgetstarted](http://www.hpe.com/services/proactivecarecentralgetstarted)

## Warranty information

To view the warranty information for your product, see the links provided below:

#### HPE ProLiant and IA-32 Servers and Options

[www.hpe.com/support/ProLiantServers-Warranties](http://www.hpe.com/support/ProLiantServers-Warranties)

#### HPE Enterprise and Cloudline Servers

[www.hpe.com/support/EnterpriseServers-Warranties](http://www.hpe.com/support/EnterpriseServers-Warranties)

#### HPE Storage Products

[www.hpe.com/support/Storage-Warranties](http://www.hpe.com/support/Storage-Warranties)

#### HPE Networking Products

[www.hpe.com/support/Networking-Warranties](http://www.hpe.com/support/Networking-Warranties)

# Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

[www.hpe.com/support/Safety-Compliance-EnterpriseProducts](http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts)

## Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

[www.hpe.com/info/reach](http://www.hpe.com/info/reach)

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

[www.hpe.com/info/ecodata](http://www.hpe.com/info/ecodata)

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

[www.hpe.com/info/environment](http://www.hpe.com/info/environment)

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