



**Hewlett Packard**  
Enterprise

# **HPE 3PAR OS 3.2.2 MU4 Patch 129**

## **Release Notes**

### **Abstract**

This release notes document is for 3.2.2 MU4 P129.

Part Number: QL226-10017  
Published: January 2019  
Edition: 1

© 2014-2018, Hewlett Packard Enterprise Development LP

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Export of the information contained in this publication may require authorization from the U.S. Department of Commerce.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

## **Acknowledgements**

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation.

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Java and Oracle are registered trademarks of Oracle and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Intel®, Itanium®, Pentium®, Intel Inside®, and the Intel Inside logo are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

# Purpose

The HPE 3PAR OS 3.2.2 MU4 P129 provides support for new drives and drive firmware upgrades.

---

❗ **IMPORTANT:** See the [HPE 3PAR OS and Service Processor Software Update Guide \(HPE 3PAR OS 3.2.x HPE 3PAR Service Processor 4.x\)](#) for instructions on updating your specific software.

---

## Guidance

This is an as needed patch. Arrays running on OS versions prior to 3.2.2 MU4 P102 should not upgrade to P102, P121, P128. They should use P129 instead.

## Prerequisites

- Minimum Service Processor required: SP-4.4.0 MU3 + latest SP Patch.
- Base OS: 3.2.2 MU4. See the Requires field in the Patch details.

## Patch details

Patch ID: P129

Synopsis: Provides support for new drives and drive FW upgrades

Date: January 04, 2019, 13:08:58 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P128

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P84,OS-3.2.2.612-P92,OS-3.2.2.612-P94,OS-3.2.2.612-P98,OS-3.2.2.612-P113,OS-3.2.2.612-P118,OS-3.2.2.612-P120

Build Version: 3.2.2.778

Patches Included: None.

Patches Partially Superseded: None.

Patches Obsolete by Combination: None.

Supports Revert: Yes

Notes: Description of the obsoleted patches:

Patch ID: P128

Synopsis: Provides support for drive FW updates

Date: October 10, 2018, 13:10:37 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P121

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P84,OS-3.2.2.612-P92,OS-3.2.2.612-P94,OS-3.2.2.612-P98,OS-3.2.2.612-P113,OS-3.2.2.612-P118,OS-3.2.2.612-P120

Build Version: 3.2.2.767

Notes: Description of the obsoleted patches:

Patch ID: P121

Synopsis: Provides support for new drives

Date: October 10, 2018, 11:20:13 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P102

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P84,OS-3.2.2.612-P92,OS-3.2.2.612-P94,OS-3.2.2.612-P98,OS-3.2.2.612-P113,OS-3.2.2.612-P118,OS-3.2.2.612-P120

Build Version: 3.2.2.765

Notes: Description of the obsoleted patches:

Patch ID: P102

Synopsis: Provides support for drive FW updates

Date: July 27, 2018, 15:36:15 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P101

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P84,OS-3.2.2.612-P92,OS-3.2.2.612-P94

Build Version: 3.2.2.754

Notes: Description of the obsoleted patches:

Patch ID: P101

Synopsis: Provides support for drive FW updates

Date: January 16, 2018, 19:36:50 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P57,OS-3.2.2.612-P74,OS-3.2.2.612-P95

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P84,OS-3.2.2.612-P92,OS-3.2.2.612-P94

Build Version: 3.2.2.718

Notes: Description of the obsoleted patches:

Patch ID: P57

Synopsis: Provides support for drive FW updates and new drives

Date: February 21, 2017, 15:51:53 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-sysmgr, tpd-prerevert

Obsoletes: OS-3.2.2.612-P50

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56

Build Version: 3.2.2.628

Notes: Description of the incorporated patches:

Patch ID: P50

Synopsis: Provides support for drive FW updates and new drives

Date: December 08, 2016, 14:35:12 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-drivefw, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4

Build Version: 3.2.2.617

Notes:

Patch ID: P74

Synopsis: Provides support for drive FW updates and new drives

Date: April 25, 2017, 12:44:06 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-utils, tpd-prerevert

Obsoletes: OS-3.2.2.612-P58,OS-3.2.2.612-P73

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59

Build Version: 3.2.2.647

Notes: Description of the incorporated patches:

Patch ID: P58

Synopsis: Provides support for drive FW updates and new drives

Date: March 16, 2017, 21:06:22 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57

Build Version: 3.2.2.636

Notes:

Patch ID: P73

Synopsis: Provides additional support for SSD drives

Date: April 14, 2017, 14:45:58 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P72

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57,OS-3.2.2.612-P58

Build Version: 3.2.2.645

Notes: Description of the incorporated patches:

Patch ID: P72

Synopsis: Provides additional support for SSD drives

Date: March 31, 2017, 19:44:14 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57,OS-3.2.2.612-P58

Build Version: 3.2.2.641

Notes:

Patch ID: P95

Synopsis: Provides support for new drive and drive FW updates

Date: October 30, 2017, 17:48:31 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P91

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P74,OS-3.2.2.612-P84

Build Version: 3.2.2.710

Notes: Description of the obsoleted patches:

Patch ID: P91

Synopsis: Provides support for new second source drives and drive FW updates

Date: August 14, 2017, 15:29:35 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P90

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P74,OS-3.2.2.612-P84

Build Version: 3.2.2.682

Notes: Description of the incorporated patches:

Patch ID: P90

Synopsis: Provides support for drive FW updates and enhanced logging.

Date: July 31, 2017, 11:43:58 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59,OS-3.2.2.612-P74,OS-3.2.2.612-P84

Build Version: 3.2.2.680

Notes:

**This patch is revertible, however, revert after the supported drives are in use makes them unavailable.**

---

**NOTE:**

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

---

# Modifications

Patch 129 will upgrade DOPM3840S5xnNMR drives with 3P01 firmware to 3P04.

This patch will upgrade DOPE0480S5xnNMRI and DOPE1920S5xnNMRI drives with 3P01 firmware to 3P07.

HPE 3PAR OS 3.3.1 MU4 P129 provides support for the following new drives and drive firmware upgrades:

| Drive            | Category | Capacity | Speed | StoreSer v 10000 | StoreSer v 7000 | StoreSer v 20000 | StoreSer v 8000 | FW   |
|------------------|----------|----------|-------|------------------|-----------------|------------------|-----------------|------|
| AREX0480S5xnNTRI | SSD      | 480GB    | 100K  | No               | Yes             | Yes              | Yes             | 3P07 |
| AREX0920S5xnNTRI | SSD      | 920GB    | 100K  | No               | Yes             | No               | No              | 3P07 |
| AREX1920S5xnNTRI | SSD      | 1.92TB   | 100K  | Yes              | Yes             | Yes              | Yes             | 3P07 |
| AREX3840S5xnNTRI | SSD      | 3.84TB   | 100K  | No               | Yes             | Yes              | Yes             | 3P07 |
| AREX0400S5xnNTRI | SSD      | 400GB    | 150K  | Yes              | Yes             | Yes              | Yes             | 3P03 |
| AREX0920S5xnFTRI | SSD      | 920GB    | 100K  | No               | Yes             | Yes              | Yes             | 3P03 |
| AREX1920S5xnFTRI | SSD      | 1.92TB   | 100K  | No               | Yes             | Yes              | Yes             | 3P03 |
| AREX3840S5xnFTRI | SSD      | 3.84TB   | 100K  | No               | Yes             | Yes              | Yes             | 3P03 |
| STHB0600S5xeN010 | FC       | 600GB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P03 |
| STHB1200S5xeN010 | FC       | 1.2TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P03 |
| STHB1800S5xeN010 | FC       | 1.8TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P03 |
| SSKB0600S5xeN010 | FC       | 600GB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P01 |
| SSKB1200S5xeN010 | FC       | 1.2TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P01 |
| SSKB1800S5xeN010 | FC       | 1.8TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P01 |
| SSKB1200S5xeF010 | FC       | 1.2TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P01 |
| HCFP0600S5xeN010 | FC       | 600GB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P00 |
| HCFP1200S5xeN010 | FC       | 1.2TB    | 10K   | Yes              | Yes             | Yes              | Yes             | 3P00 |

*Table Continued*

|                      |     |        |      |     |     |     |     |      |
|----------------------|-----|--------|------|-----|-----|-----|-----|------|
| HCFP1800S5<br>xeN010 | FC  | 1.8TB  | 10K  | Yes | Yes | Yes | Yes | 3P00 |
| HCFP1200S5<br>xeF010 | FC  | 1.2TB  | 10K  | Yes | Yes | Yes | Yes | 3P00 |
| ARFX0920S5<br>xnNTRI | SSD | 920GB  | 150K | No  | Yes | Yes | Yes | 3P00 |
| ARFX1920S5<br>xnNTRI | SSD | 1.92TB | 100K | Yes | Yes | Yes | Yes | 3P00 |
| ARFX3840S5<br>xnNTRI | SSD | 3.84TB | 100K | No  | Yes | Yes | Yes | 3P00 |
| ARFX7680S5<br>xnNTRI | SSD | 7.68TB | 100K | No  | No  | Yes | Yes | 3P00 |
| ARFX15T4S5<br>xnNTRI | SSD | 15.3TB | 100K | No  | No  | Yes | Yes | 3P00 |
| HKCF0300S5<br>xeN015 | FC  | 300GB  | 15K  | Yes | Yes | Yes | Yes | 3P04 |
| HKCF0600S5<br>xeN015 | FC  | 600GB  | 15K  | Yes | Yes | Yes | Yes | 3P04 |
| HKCF0600S5<br>xeF015 | FC  | 600GB  | 15K  | Yes | Yes | Yes | Yes | 3P04 |
| SKST0300S5<br>xeN015 | FC  | 300GB  | 15K  | Yes | Yes | Yes | Yes | 3P00 |
| SKST0600S5<br>xeN015 | FC  | 600GB  | 15K  | Yes | Yes | Yes | Yes | 3P00 |
| SKST0600S5<br>xeF015 | FC  | 600GB  | 15K  | Yes | Yes | Yes | Yes | 3P00 |

## Affected components

| Component         | Version          |
|-------------------|------------------|
| Firmware Database | 3.2.2.778 (P129) |
| Drive Firmware    | 3.2.2.778 (P129) |

**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.

## Installing Drive/Cage Firmware

After a firmware patch is installed successfully, the firmware (drive or cage) must be updated manually. To update the firmware, run the CLI command `starttask admithw -ni`. This command runs the update process as a task. Record the task ID for monitoring purposes. Monitor the task for successful completion using the CLI command `showtask -d <task_ID>`. See the appropriate upgrade documentation for details on patch installation. If the task fails, resolve the issue due to which the task failed. After the issue is resolved, issue the CLI command `starttask admithw -ni`. Note the new task ID number and monitor

the `admithw` task completion. Run the `admithw` task to successful completion as soon as possible after installing patches.

- 
- ⓘ **IMPORTANT:** While revert is possible, HPE does not recommended reverting a patch that delivers firmware after the `admithw` command has been executed. The `admithw` command will activate/update the new firmware. If the patch is reverted prior to `admithw` being executed, use the command `showfirmwaredb -l` after the patch revert has completed to ensure that the FW status is changed from `degraded (old_firmware)` to `normal (current)`. If the OS on the array is upgraded to a later version after a firmware patch is installed, install firmware patches prior to executing `admithw`.
- 

## Verification

The installation of Patch 129 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that Patch 129 is listed:

---

**showversion -a -b**

Release version 3.2.2.612 (MU4)

Patches: P56,P59,P94,P98,P113,P118,P120,P129

| Component Name                | Version                 |
|-------------------------------|-------------------------|
| CLI Server                    | 3.2.2.744 (P113)        |
| CLI Client                    | 3.2.2.744               |
| System Manager                | 3.2.2.753 (P118)        |
| Kernel                        | 3.2.2.612 (MU4)         |
| TPD Kernel Code               | 3.2.2.612 (MU4)         |
| TPD Kernel Patch              | 3.2.2.753 (P118)        |
| CIM Server                    | 3.2.2.744 (P113)        |
| WSAPI Server                  | 3.2.2.744 (P113)        |
| Console Menu                  | 3.2.2.612 (MU4)         |
| Event Manager                 | 3.2.2.612 (MU4)         |
| Internal Test Tools           | 3.2.2.612 (MU4)         |
| LD Check Tools                | 3.2.2.612 (MU4)         |
| Network Controller            | 3.2.2.724 (P98)         |
| Node Disk Scrubber            | 3.2.2.612 (MU4)         |
| PD Scrubber                   | 3.2.2.612 (MU4)         |
| Per-Node Server               | 3.2.2.724 (P98)         |
| Persistent Repository         | 3.2.2.612 (MU4)         |
| Powerfail Tools               | 3.2.2.612 (MU4)         |
| Preserved Data Tools          | 3.2.2.612 (MU4)         |
| Process Monitor               | 3.2.2.626 (P56)         |
| Rolling Upgrade Tools         | 3.2.2.612 (MU4)         |
| Software Updater              | 3.2.2.744 (P113)        |
| TOC Server                    | 3.2.2.724 (P98)         |
| VV Check Tools                | 3.2.2.724 (P98)         |
| File Persona                  | 1.2.2.6-20161017        |
| SNMP Agent                    | 1.8.0                   |
| SSH                           | 6.6p1-4~bpo70+1         |
| VASA Provider                 | 2.2.11 (P113)           |
| <b>Firmware Database</b>      | <b>3.2.2.778 (P129)</b> |
| <b>Drive Firmware</b>         | <b>3.2.2.778 (P129)</b> |
| UEFI BIOS                     | 04.08.38                |
| MCU Firmware (OKI)            | 4.8.29                  |
| MCU Firmware (STM)            | 5.2.53                  |
| Cage Firmware (DC1)           | 4.44                    |
| Cage Firmware (DC2)           | 2.64                    |
| Cage Firmware (DC3)           | 08                      |
| Cage Firmware (DC4)           | 2.64                    |
| Cage Firmware (DCN1)          | 4078                    |
| Cage Firmware (DCN2)          | 4078                    |
| Cage Firmware (DCS1)          | 4078                    |
| Cage Firmware (DCS2)          | 4078                    |
| Cage Firmware (DCS5)          | 1.93                    |
| Cage Firmware (DCS6)          | 1.93                    |
| Cage Firmware (DCS7)          | 4078                    |
| Cage Firmware (DCS8)          | 4078                    |
| QLogic QLA4052C HBA Firmware  | 03.00.01.77             |
| QLogic QLE8242 CNA Firmware   | 04.15.08                |
| QLogic 8300 HBA FC Firmware   | 08.01.05                |
| QLogic 8300 HBA FCoE Firmware | 08.01.05                |

|                                |            |
|--------------------------------|------------|
| QLogic 8300 HBA iSCSI Firmware | 05.07.06   |
| Emulex LP11002 HBA Firmware    | 02.82.x10  |
| Emulex LPe12002 HBA Firmware   | 02.03.x11  |
| Emulex LPe12004 HBA Firmware   | 02.03.x11  |
| Emulex LPe16002 HBA Firmware   | 10.6.248.4 |
| Emulex LPe16004 HBA Firmware   | 10.6.248.4 |
| 3PAR FC044X HBA Firmware       | 200A8      |
| LSI 9201-16e HBA Firmware      | 17.11.00   |
| LSI 9205-8e HBA Firmware       | 17.11.00   |
| LSI 9300-8e HBA Firmware       | 07.00.00   |

---

**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.

---

# 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.

---

## 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)

# Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback ([docsfeedback@hpe.com](mailto:docsfeedback@hpe.com)). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.