



**Hewlett Packard
Enterprise**

HPE 3PAR Service Processor Software SP-4.4 MU3 P006 Upgrade Instructions: Service Edition

Abstract

This guide explains how to update the HPE 3PAR Service Processor software to SP-4.4.0.GA-58 P006 at a customer site via SPMAINT using physical media, the HPE 3PAR Secure Service Architecture, STaTS, or SPOCC. This guide is for qualified technicians authorized by HPE to update storage system software. Authorized technicians include HPE field engineers, HPE Partners and Channel Partners, certified self-maintaining customers, and authorized third-party field technicians. This guide is for HPE INTERNAL AND PARTNER USE ONLY.

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Contents

- Introduction..... 4**

- SP Software SP-4.4.0.GA-58 P006 Overview..... 5**

- Supported Update Paths..... 6**
 - Supported Service Processors..... 6

- Service Processor Software Preupdate Task Overview..... 7**
 - Modifying Firewall Restrictions.....7
 - Service Processor Connectivity..... 8
 - Verifying communication between the SP and the Storage System..... 9
 - Verifying the Service Processor Software and Processes..... 9

- Updating to SP-4.4.0.GA-58 P006 Software via SPMAINT Using Physical Media..... 11**

- Updating to SP-4.4.0.GA-58 P006 Software via the HPE 3PAR Secure Service Architecture..... 13**

- Updating to SP-4.4.0.GA-58 P006 Software via the 3PAR Service Tools and Technical Support (STaTS)..... 15**

- Updating to SP-4.4.0.GA-58 P006 Software Using SPOCC..... 17**

- Running a Health Check..... 19**
 - Running a Health Check from SPMAINT..... 19
 - Running a Health Check from SPOCC..... 20

- Websites..... 21**

- Support and other resources..... 22**
 - Accessing Hewlett Packard Enterprise Support..... 22
 - Accessing updates..... 22
 - Customer self repair..... 23
 - Remote support..... 23
 - Warranty information..... 23
 - Regulatory information..... 24
 - Documentation feedback..... 24

Introduction

This guide explains how to update the HPE 3PAR Service Processor Software from version SP-4.4.0.GA-58 to SP-4.4.0.GA-58 P006 at a customer site via SPMAINT using physical media, the Secure Service Architecture, STaTS, or SPOCC.

NOTE:

- Review the HPE 3PAR Service Processor Release Notes before updating the Service Processor.
- To rebuild or restore the SP software, see the *HPE 3PAR Service Processor Software Rebuild Instructions* at the Service Access Workbench website:

<http://sawpro.atlanta.hp.com/km/saw/search.do>

SP Software SP-4.4.0.GA-58 P006 Overview

- Version name: Service Processor Software SP-4.4.0.GA-58 P006
- Prerequisite: Before the installation of SP-4.4.0.GA-58 P006 the minimum SP software level must be SP-4.4.0.GA-58.

NOTE:

HPE 3PAR Service Processor 4.4.0.GA-58 (MU3) P006 provides support for HPE 3PAR OS 3.2.2.612 (EMU4).

NOTE:

- Modem support is not provided.
- For prior SP configurations, see the *HPE 3PAR Service Processor Support Matrix* on the HPE Storage Single Point of Connectivity Knowledge (SPOCK) website: <http://www.hpe.com/storage/spock>.

Select **3PAR** under the **Other Hardware** menu. Locate **Other HP 3PAR Support Matrices**.

Supported Update Paths

The SP must be at a minimum level of SP-4.4.0.GA-58 before updating to SP-4.4.0.GA-58 P006.

For other configuration information, see the Support Matrix for specific update paths on the HPE Storage Single Point of Connectivity Knowledge (SPOCK) website:

<http://www.hpe.com/storage/spock>

Supported Service Processors

The following Service Processors are supported with release level SP-4.4.0.GA-58 P006.

Service Processor	Platform type	Supported models
Virtual Service Processor	Virtual	ESXi 5.0 ESXi 5.1 ESXi 5.5 ESXi 6.0
Virtual Service Processor	Virtual	Hyper-V Server 2008 R2 Hyper-V Server 2012 Hyper-V Server 2012 R2
HP ProLiant	Physical	DL120 DL320e DL360e
Supermicro	Physical	Supermicro II

For more information, see the Single Point of Connectivity Knowledge for HPE Storage Products (SPOCK) website:

<http://www.hpe.com/storage/spock>

Service Processor Software Preupdate Task Overview

NOTE:

These tasks are applicable to updates via physical media or the Secure Service Architecture.

Before updating the SP software, ensure that the firewall restrictions are modified (**Modifying Firewall Restrictions** on page 7) and SP can connect to the new HPE servers (**Service Processor Connectivity** on page 8).

Perform the following preupdate tasks from SPMAINT to ensure proper installation:

1. **Verifying communication between the SP and the Storage System** on page 9
2. **Verifying the Service Processor Software and Processes** on page 9

NOTE:

For additional support, contact an authorized 3PAR Service provider.

Modifying Firewall Restrictions

Before performing the upgrade to the Service Processor patch SP-4.4.0 MU3 P006, ensure that there are no customer firewall restrictions to the existing HP servers and new HPE servers on port 443. Firewall and proxy server configuration must be updated to allow outbound connections from the Service Processor to the existing HP servers and new HPE servers.

The following are the details of the HP and HPE server host names and IP addresses:

- Collector Server:
 - <https://storage-support.glb.itcs.hpe.com> (16.248.72.63)
 - <https://storage-support1.itcs.hpe.com> (16.248.72.63)
 - <https://storage-support2.itcs.hpe.com> (16.250.72.82)
 - <https://s54t0109g.sdc.ext.hpe.com> (15.203.174.94)
 - <https://s54t0108g.sdc.ext.hpe.com> (15.203.174.95)
 - <https://s54t0107g.sdc.ext.hpe.com> (15.203.174.96)
 - <https://g4t8660g.houston.hpe.com> (15.241.136.80)
 - <https://s79t0166g.sgp.ext.hpe.com> (15.211.158.65)
 - <https://s79t0165g.sgp.ext.hpe.com> (15.211.158.66)
 - <https://g9t6659g.houston.hpe.com> (15.241.48.100)
- HPE Remote Support Connectivity Global Access Servers (GAS):

- <https://c4t18808.itcs.hpe.com> (16.249.3.18)
 - <https://c4t18809.itcs.hpe.com> (16.249.3.14)
 - <https://c9t18806.itcs.hpe.com> (16.251.3.82)
 - <https://c9t18807.itcs.hpe.com> (16.251.4.224)
- HP Remote Support Connectivity Global Access Servers (GAS):
 - <https://g4t2481g.houston.hp.com> (15.201.200.205)
 - <https://g4t2482g.houston.hp.com> (15.201.200.206)
 - <https://g9t1615g.houston.hp.com> (15.240.0.73)
 - <https://g9t1616g.houston.hp.com> (15.240.0.74)

After the upgrade, Service Processors configured in Secure Network Mode are automatically reconfigured to connect to the new HPE servers.

⚠ CAUTION:

Failure to modify the firewall settings to accommodate the new HPE servers might result in the loss of the file transfer to HQ. Other operations like remote operations and package deployment might be affected.

Service Processor Connectivity

Before proceeding with the connectivity test for SP, ensure that you have following details:

- Proxy name if the Service Processor is configured with proxy.
- Proxy authentication details if the Service Processor is configured with proxy with authentication. Obtain the password from the customer.

To verify that SP can connect to the new HPE servers:

Procedure

1. Log in to the SP with the `root` user credentials.

NOTE:

If you cannot log in to the SP with the `root` user credentials, contact HPE support.

2. Depending on the SP configuration, execute the `curl` command with appropriate option parameters.
 - SP configured in Secure Network mode without any proxy:


```
curl -k --connect-timeout 15 --max-time 15 --silent --show-error --user-agent 'Mozilla/5.0' --url https://storage-support.glb.itcs.hpe.com
```
 - SP configured with http proxy without authentication:

```
curl -k --connect-timeout 15 --max-time 15 -silent --show-error --user-agent 'Mozilla/5.0' --url https://storage-support.glb.itcs.hpe.com --proxy <Proxy IP>:<Proxy Port>
```

- SP configured with http proxy with authentication:

```
curl -k --connect-timeout 15 --max-time 15 --silent --show-error --user-agent 'Mozilla/5.0' --url https://storage-support.glb.itcs.hpe.com --proxy <Proxy IP>:<Proxy Port> --proxy-user <Proxy Username>:<Proxy Password>
```

- SP configured with socks proxy without authentication:

```
curl -k --connect-timeout 15 --max-time 15 --silent --show-error --user-agent 'Mozilla/5.0' --url https://storage-support.glb.itcs.hpe.com --socks4a <Proxy IP>:<Proxy Port>
```

- SP configured with socks proxy with authentication:

```
curl -k --connect-timeout 15 --max-time 15 --silent --show-error --user-agent 'Mozilla/5.0' --url https://storage-support.glb.itcs.hpe.com --socks5-hostname <Proxy IP>:<Proxy Port> -proxy-user <Proxy Username>:<Proxy Password>
```

3. When the command is executed successfully, it displays a curl code 200 or 302 in the <title> tag. If the command fails, check the firewall settings and run the test again.

Verifying communication between the SP and the Storage System

Procedure

1. To launch the **Interactive CLI**, from the SPmaint main menu, type **7** for **Interactive CLI for a StoreServ**.
2. Select the desired storage system, and then press **Enter** to begin an interactive CLI session. To exit Interactive CLI, type **exit**, and then press **Enter** to return to SPmaint main menu.

Verifying the Service Processor Software and Processes

Before applying the SP software, ensure that the SP OS software meets the minimum requirement level required for an update. To verify the current SP OS software level:

Procedure

1. Use a serial or SSH connection to establish a connection to the SP.
2. From the SPMAINT main menu, type **1** for **SP Control/Status**, and then press **Enter**.
3. Type **1** for **Display SP Version**, and then press **Enter**.
4. Locate the `SP Version` in the output to verify that the current level meets the required minimum SP level for an update.
Example:

```
1.1      Display SP Version

          SP Software Version

SP-4.4.0.GA-58

SP Base Image Version:      Red Hat Enterprise Linux Server release 6.1
(Santiago)
SP Version:                  4.4.0.GA-58
HP 3PAR OS release (3.2.2): 3.2.2.xxx
More detail is available in the latest SPLOR or spconfig data.

Press <enter/return> to continue
```

5. To return to the **SP Control** menu, press **Enter**.
6. Type **13** for **Display SP status** to check the processes that are running. Save the SP status output. You will require this output to compare with the post-update output. The following is an example of the output of running processes:

```
The following global procedures are running:
  /sp/prod/code/csst/bin/SPcommctlr
  /sp/prod/code/csst/bin/SPnetmon
  /sp/prod/code/csst/bin/SPtransfer
  /sp/prod/code/csst/bin/SPup2date
  /sp/prod/code/csst/bin/STlogger
  /sp/prod/code/csst/bin/spcollect
  /sp/prod/code/csst/bin/spevent
  /sp/prod/code/csst/bin/stAnalyze
  /sp/prod/code/csst/bin/stBackDoor
  /sp/prod/code/csst/bin/stGrpNot
  /sp/prod/code/csst/bin/stMonitor
  /sp/prod/code/csst/bin/stNotify
There are 12 httpd server processes running

spevent is running for the following clusters:
  <StoreServ_serial_number> (<StoreServ_name>)

spcollect processes are running as follows:
  biosmsg for <StoreServ_serial_number> (<StoreServ_name>)
  config  for <StoreServ_serial_number> (<StoreServ_name>)
  eeprom  for <StoreServ_serial_number> (<StoreServ_name>)
  environ for <StoreServ_serial_number> (<StoreServ_name>)
  evtlog  for <StoreServ_serial_number> (<StoreServ_name>)
  perform for <StoreServ_serial_number> (<StoreServ_name>)
  status  for <StoreServ_serial_number> (<StoreServ_name>)
```

For SPs that are running in Secure Network Mode, the following information is also displayed:

```
SSAgent run status -
  agent is running
```

7. To return to **SP Control** menu, press **Enter**.
8. To return to the **SPMAINT** main menu, type **x** and then press **Enter**.

Updating to SP-4.4.0.GA-58 P006 Software via SPMAINT Using Physical Media

Before installing the SP-4.4.0.GA-58 P006, the SP must be at a minimum level of SP-4.4.0.GA-58.

Procedure

1. Insert the HPE 3PAR Service Processor Software SP-4.4.0.GA-58 P006 media into the SP physical media drive.
2. From the SPMAINT main menu, type =1 . 16 . 1, and then press **Enter**.
3. Type the number corresponding to the media drive option, and then press **Enter**.

During this process, the SP validates the contents of the media. If the checks pass, a prompt to update from the media appears.

4. Type **y** and then press **Enter** to update the SP from the media.

NOTE:

Ensure that the Maintenance Mode is OFF.

5. From the SPMAINT main menu, type 1 for **SP Control/Status**, and then press **Enter**.
6. Type 1 for **Display SP Version** and then press **Enter** to verify that the SP package is completely installed.

```
1.1      Display SP Version
         SP Software Version
SP-4.4.0.GA-58

SP Base Image Version:      Red Hat Enterprise Linux Server release 6.1
(Santiago)
SP Version:                 4.4.0.GA-58
SP Patches:             P006
HP 3PAR OS release (3.2.2): 3.2.2.xxx
More detail is available in the latest SPLOR or spconfig data.

Press <enter/return> to continue
```

At this point, the patch is successfully applied to the SP.

NOTE:

SP patches are cumulative. Only the latest patch applied is displayed in Display SP Version output.

7. To return to the SP Control menu, press **Enter**.
8. After verifying the SP version, type 13 for **Display SP Status**, and then press **Enter** to view active SP process.
9. Compare the SP status output with the previously saved status output from step 6 of **Verifying the Service Processor Software and Processes** on page 9 and verify that the same processes are

running. See the *HPE 3PAR Service Processor Service Guide* for information about running processes.

10. To return to the SP Control menu, press **Enter**.
11. To return to the SPMaint main menu, type **x** and then press **Enter**.
12. Verify communication between the SP and storage system as described in **Verifying communication between the SP and the Storage System** on page 9.
13. Remove the media from the media drive, and store it in the storage system cabinet.
14. Verify the health of the system as described in **Running a Health Check from SPMaint** on page 19.

Updating to SP-4.4.0.GA-58 P006 Software via the HPE 3PAR Secure Service Architecture

NOTE:

The following procedure is only for internal use and must be performed by an authorized administrator.

The SP-4.4.0.GA-58 P006 update can be applied to the SP via the HPE 3PAR Secure Service Architecture database.

⚠ CAUTION:

- Do NOT use a collector server remote session to connect to the SP to perform an update. The connection resets during the update and might result in failure. The SP might require a rebuild of the software when an update fails.
 - Ensure that all SPMAINT sessions are terminated before deploying a package. Otherwise, the deployment will fail.
-

NOTE:

Close SPMAINT consoles before deploying Secure Service Architecture packages.

Procedure

1. Connect to the Secure Service Architecture and log on.
2. Locate and click the **CONTENT** tab.
3. Click **Deploy packages to assets over the internet**.
4. Select the **SP-4.4.0.GA-58 P006.auto_deploy** package, and then click **Next**.
5. Select **Manual Deployment**, and then click **Next**.
6. In the **Available Assets** table, search for the asset to which you wish to deploy the MU3 P006 package and then click to check.
7. Click **Add Checked** and then click **Next**.
8. Select the **Schedule package for immediate deployment** option, and then click **Next**.
9. To receive the alerts to events as the package deploys, select the appropriate notification options, enter your contact information, and then click **Next**.
10. Review the confirmation information. To install the update on the SP, click **Deploy**.
11. To check the status of the update deployment, use the **Package Deployment Manager**. To refresh the page, press **F5**.
12. After verifying that the deployment is complete, exit the session and log off the server. The `auto_deploy` package automatically stages itself to the SP. To complete the update using SPOCC, see **Updating to SP-4.4.0.GA-58 P006 Software Using SPOCC** on page 17. Use the default pre-loaded option to perform the update.

13. Wait for the update process to finish. The update process takes approximately 20 minutes.
14. Connect to the SP, verify the SP software version, and verify that the processes are active. Compare the output to the output from step 6 of **Verifying the Service Processor Software and Processes** on page 9.
15. Verify communication between the SP and the storage system as described in **Verifying communication between the SP and the Storage System** on page 9.
16. Verify the health of the storage system as described in **Running a Health Check** on page 19.

Updating to SP-4.4.0.GA-58 P006 Software via the 3PAR Service Tools and Technical Support (STaTS)

NOTE:

If the SP using Secure network transport mode is configured with weekly scrubber option enabled, after upgrade to SP 4.4 MU3 P006 real time scrubber option is enabled by default.

Procedure

1. Connect to STaTS by providing the following address in the supported browser:
<https://stwebint.houston.hpecorp.net>
Log in with valid STaTS HPE credentials.
2. Locate and click the **SUPPORT** tab.
3. Click **Deployment Manager**.
4. Select **RDA** as **Deployment Channel** from the drop-down list.
5. Click **Start a New Deployment**.
6. On the **Deployment Manager — Launch a New Deployment** page, select appropriate package from the **Package to Deploy** drop-down list.
7. Select **SP** from the **Deployment Target** drop-down list.
8. Click **Search/Refresh** to display the list of all available assets.
9. From the **Available Assets** table, select the asset to which you wish to deploy the package, and then click **Deploy**.
10. Review the confirmation information, and then click **OK** to install the update on the SP.
11. Use the **Deployment Manager — View Deployment History** page of the STaTS to check the status of the update deployment. To refresh the page, click **Filter/Refresh**.
12. (Optional) Click **RDA Deployment ID** to get more log information about the ongoing deployment.
13. (Optional) Click **Device ID** to get more details about the selected asset.
14. After you verify that the deployment is complete, exit the session and log off from STaTS. The `auto_deploy` package automatically stages itself to the SP. To complete the update using SPOCC, see **[Updating to SP-4.4.0.GA-58 P006 Software Using SPOCC](#)** on page 17. Use the default pre-loaded option to perform the update.
15. Wait for the update process to finish. This process will take approximately 20 minutes.
16. Connect to the SP, verify the SP software version, and verify that the processes are active.
17. Compare the output to the output from step 6 of **[Verifying the Service Processor Software and Processes](#)** on page 9.

18. Verify communication between the SP and the storage system as described in **Verifying communication between the SP and the Storage System** on page 9.
19. Verify the health of the storage system as described in **Running a Health Check** on page 19.

Updating to SP-4.4.0.GA-58 P006 Software Using SPOCC

ⓘ **IMPORTANT:**

- Ensure that the browser pop-ups are allowed.
 - To exit the update interface at any time, click any tab in the left navigation pane.
 - You cannot cancel an update procedure after it starts.
 - During an SP update, most other SP functions are unavailable. Do not perform any SP tasks when an update is in progress. Doing so might cause unpredictable results.
 - For HPE 3PAR support matrices and hardware support for HPE 3PAR OS, see the HPE Storage Single Point of Connectivity Knowledge (SPOCK) website at <http://www.hpe.com/storage/spock>.
-

Procedure

1. Connect to SPOCC with the SP IP address. Enter the SP IP address into a supported browser and login with a valid username and password.
2. Click **Update** in the left navigation pane.
3. Click **Update Service Processor**.
4. A screen appears showing next steps. Review the steps carefully and then click **Next** to continue.
5. Select one of the following options to identify the location of the SP version that you are updating to:
 - **Preloaded:** This is the default option. The Preloaded list contains software versions that were either automatically loaded for you from HPE or previously staged from an ISO image or physical media. Choose a version from the drop-down menu and then click **Next** to continue.
 - **ISO Image:** Choose this option if the update is stored in an ISO image file.
 - a. Click **Browse** to navigate to the software version you wish to install.
 - b. Click **Next** to continue.
 - **Service Processor DVD drive:** Choose this option if your software is on physical media.
 - a. Click **Next** to continue.
 - b. Place the DVD in the media drive, a message appears:

```
A DVD was detected in the Service Processor media drive. The media drive will open for you to remove the DVD after the staging is finished. Press OK to continue or Cancel to abort.
```

Click **OK** to continue.

- c. A progress bar appears while files are staged.

NOTE:

Staging fails if SP Storage space is very low. The wizard provides a link to **SP Cleanup** where you can delete files to free space.

- d. When staging is complete, the media drive opens, remove the DVD.
-
- 6. The **Review release notes** page appears. Click the link to view the release notes for the SP version that you selected, or click the **HP Support Center** link for more information about the product.
When you have thoroughly reviewed the release notes, click **Next**.
 - 7. A confirmation message appears showing the version being installed. Carefully review the selection and then click **Install** to continue or click **Back** to change the selection.
The Update status screen appears showing **Status: Update in progress** and the status of the update in the **Details** section.
 - 8. When the update completes, the updated information and the SP software version appear on the **Home** page.
 - 9. Verify the health of the storage system as described in [Running a Health Check from SPOCC](#) on page 20.

Running a Health Check

After the SP update is complete, determine the current status and verify the overall health of the storage system using either the SPMAINT utility or SPOCC.

Running a Health Check from SPMAINT

Procedure

1. From the SPMAINT main menu, type **=4 . 4**, and then press **Enter**.
2. Select the system to run the health check on, and then press **Enter**. The following prompt appears:

```
Are you sure you want to retrieve and transfer
the check health data for StoreServ <System_Name>?
(y or n)
```

3. Type **y**, and then press **Enter**.

NOTE:

When running the Health Check, the screen might remain blank while information is gathered. This process could take a few minutes before displaying results. Wait for the process to complete and do not attempt to cancel or start over.

After the health check has finished gathering data, the SP displays a list of files to view, as shown in the following figure:

```
4.4.2 Show latest health check status from StoreServ

Available files

1 ==> /sp/prod/data/files/1300338/status/
110420.101029.all
2 ==> /sp/prod/data/files/1300338/status/
110420.101029.det
3 ==> /sp/prod/data/files/1300338/status/
110420.101029.err
4 ==> /sp/prod/data/files/1300338/status/
110420.101029.sum

0 ==> Abort Operation

Please select a file to display
```

Type the number that corresponds to the summary data file that has the `.all` extension, and then press **Enter**.

4. Review the summary data file.

NOTE:

- You can use the `more` command to view files. Press the spacebar to move to the next page.
 - Review and correct any exceptions before performing an HP 3PAR OS update.
-

Press **Enter** to continue, and then type `0` for **Abort Operation** to exit the health check.

NOTE:

After you exit, the report is no longer available. To view the report again, run the health check again.

5. Log out of the SP.

Running a Health Check from SPOCC

**IMPORTANT:**

Ensure that browser pop-ups are allowed.

Procedure

1. Click **Support** in the left navigation pane.
 2. Click **Health Check** from the list of StoreServ Actions.
 3. A pop-up window appears showing a status message while the health check runs.
-

NOTE:

When running the Health Check using Internet Explorer, the screen might remain blank while information is gathered. This process could take a few minutes before displaying results. Wait for the process to complete and do not attempt to cancel or close your browser.

4. When the health check process completes, it creates a report and displays in a new browser window. To review the report, click either `Details` or `View Summary`.
5. Resolve issues, if any. Close the report window.

Websites

General websites

Hewlett Packard Enterprise Information Library

www.hpe.com/info/EIL

Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix

www.hpe.com/storage/spock

Storage white papers and analyst reports

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

Hewlett Packard Enterprise Support Center: Software downloads

www.hpe.com/support/downloads

Software Depot

www.hpe.com/support/softwaredepot

- To subscribe to eNewsletters and alerts:
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:

! **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

HPE Proactive Care services

www.hpe.com/services/proactivecare

HPE Proactive Care service: Supported products list

www.hpe.com/services/proactivecaresupportedproducts

HPE Proactive Care advanced service: Supported products list

www.hpe.com/services/proactivecareadvancedsupportedproducts

Proactive Care customer information

Proactive Care central

www.hpe.com/services/proactivecarecentral

Proactive Care service activation

www.hpe.com/services/proactivecarecentralgetstarted

Warranty information

To view the warranty for your product or to view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products* reference document, go to the Enterprise Safety and Compliance website:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional warranty information

HPE ProLiant and x86 Servers and Options

www.hpe.com/support/ProLiantServers-Warranties

HPE Enterprise Servers

www.hpe.com/support/EnterpriseServers-Warranties

HPE Storage Products

www.hpe.com/support/Storage-Warranties

HPE Networking Products

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

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

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

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

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