



Hewlett Packard
Enterprise

HPE 3PAR OS 3.3.1 MUx and Service Processor Software 5.0.x Update Guide

Abstract

This guide provides instructions on how to update the HPE 3PAR Operating System 3.3.1 MUx software and the HPE 3PAR Service Processor 5.0.x software using the HPE 3PAR Service Console.

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Revision history

Part number	Publication date	Edition	Summary of changes
P24145-001	December 2019	2	Expanded the scope of the guide to include information about all versions of SP 5.0.x.
QL226-10034	April 2019	1	<ul style="list-style-type: none">Review the HPE 3PAR Service Processor Release NotesUpdate the HPE 3PAR SPUpdate the HPE 3PAR OS<ul style="list-style-type: none">Stage a downloadable updateStage a different (local) updateInstall a ready patch updateInstall a major updateRevert an update



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Update overview

This guide provides instructions to update your HPE 3PAR Operating System (OS) 3.3.1 MUX software and your HPE 3PAR Service Processor (SP) 5.0.x software without the assistance of an authorized service provider. You update the HPE 3PAR OS and HPE 3PAR SP software using the HPE 3PAR Service Console (SC).

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- ❗ **IMPORTANT:** If update assistance is needed, contact your Hewlett Packard Enterprise sales representative or HPE Channel Partner to purchase HPE Deployment services.
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Customer guidelines

- If your HPE 3PAR StoreServ is under warranty and there is a service contract, Hewlett Packard Enterprise or an authorized service provider can perform the update.
A service technician can update the storage system software onsite with physical media or deploy and update remotely.
- If your HPE 3PAR StoreServ storage system is running HPE 3PAR OS 3.2.2, then contact HPE support for patch and MU upgrades.
- To access software updates and to install the HPE 3PAR OS, Maintenance Update (MU) releases, or patches, you must maintain an active Hewlett Packard Enterprise support contract and product entitlement.
- If the **Allow software downloads** option is enabled through the Service Console, the HPE 3PAR OS package is staged on your storage system. A grouped low urgency email notification and an alert inform you that a new update is available.

Customer responsibilities

- Review all the relevant documentation for the HPE 3PAR OS and HPE 3PAR SP before performing the update. The following documents, and others referenced in this document, are available on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/docs>

- *HPE 3PAR OS 3.3.1 Release Notes*
- *HPE 3PAR OS Upgrade Tools Release Notes*
- *HPE 3PAR Service Processor Software 5.x Release Notes*
- *HPE 3PAR Upgrade Planning Guide*
- *HPE 3PAR Service Processor Software 5.0.x User Guide*

- Ensure that the host and SAN environment is supported and compliant with Hewlett Packard Enterprise recommendations. Resolve any problems with the host and SAN environment prior to upgrading the HPE 3PAR OS and HPE 3PAR SP software.

- See the HPE 3PAR host implementation guides on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/docs>

- See the *HPE 3PAR Smart SAN User Guide* on the Hewlett Packard Enterprise Support Center:

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



NOTE: Host and SAN components that might require an update have their own warranty policies. Refer to the documentation for those products for this information.

- To determine supported HPE 3PAR OS software and HPE 3PAR SP software update paths, see the *HPE 3PAR StoreServ 3PAR OS 3.3.1 Support Matrix* and the *HPE 3PAR Service Processor Support Matrix*. These documents are available on SPOCK:

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

- Do not perform SP tasks during an SP update. Unpredictable results may occur.

Update by Hewlett Packard Enterprise or an HPE Authorized Service Provider

To arrange for Hewlett Packard Enterprise to perform the update, contact the Hewlett Packard Enterprise global deployment center at **3par-sps@hpe.com** and include the HPE 3PAR StoreServ Storage system serial number in the subject line. The email service is available 24 hours a day, 7 days a week. If you have a service contract with an HPE authorized service provider, contact the authorized service provider to schedule a HPE 3PAR OS software update.

Downloading software product updates

Procedure

1. Confirm that you have your Service Agreement ID (SAID).

Your support agreement outlines your support coverage for your software product. Your 12 digit SAID number is located in your support agreement. If you need assistance, contact your Hewlett Packard Enterprise representative.

2. Go to the Software updates and licensing website: **<http://www.hpe.com/downloads/software>**.

- a. Log in with your HPE Passport user ID. Create an HPE Passport account if you do not have one.
- b. Enter your SAID. If you linked SAIDs to your profile on **[Hewlett Packard Enterprise Support Center](#)**, you can select the SAID from the list.
- c. Accept the terms and conditions.

3. Download updates for your product.

- a. Click **View available products**.
- b. Enter the product name or number in the search box. Updates for the product are listed.
- c. Select one or more updates and click **Get software updates**.

Supported browsers

The following browsers are supported when connecting to the HPE 3PAR Service Console:

- Microsoft Internet Explorer
- Microsoft Windows Edge



- Mozilla Firefox
- Google Chrome

For the most current browser version information, see the *HPE 3PAR Service Processor Software 5.x Release Notes* on the *Hewlett Packard Enterprise Information Library*:

<http://www.hpe.com/info/storage/docs>

Logging in to the HPE 3PAR Service Console

Prerequisites

Ensure that browser pop-ups are allowed.

Procedure

1. Browse to the SP IP address: `https://<sp_ip_address>:8443`.
2. Enter the user name and password, then click **Login**.

The **Service Processor Overview** view is displayed by default.



Updating HPE 3PAR Service Processor software for SP 5.0.x less than SP 5.0.5

If you are using SP version 5.0.x less than SP 5.0.5 (such as 5.0.3 or 5.0.4), follow the tasks provided in this chapter to update the SP software.

Review the HPE 3PAR Service Processor Release Notes

Procedure

1. Download the *HPE 3PAR Service Processor Software 5.x Release Notes*. Release notes are available on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/3parsp-docs>

2. Review the release notes for the SP version you will use for the update to:

- Understand the enhancements and fixes
- Verify minimum supported versions
- Identify known issues

Update the HPE 3PAR SP

This procedure is the same for installing SP patches and maintenance updates.

! **IMPORTANT:** Service Processor software updates may automatically restart the Service Processor to activate changes. It can take up to 5 minutes before the Service Processor is available again and you will be disconnected during that time. StoreServ data availability is not affected during the time that the Service Processor is restarting. To determine if the version you are installing will restart the Service Processor, see the *HPE 3PAR Service Processor Software 5.x Release Notes*.

Prerequisites

- If the SP software version you want to install is not yet available on the SP, you must download the Service Processor software. See **Downloading software product updates**.
- To determine supported update paths for SP software, review the *HPE 3PAR Service Processor Support Matrix*, which is available on SPOCK:

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

- If needed, review HPE 3PAR Service Console options in the *HPE 3PAR Service Processor Software 5.0.x User Guide* on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/3parsp-docs>

Procedure

1. Log in to the Service Console.
2. Open the Service Console main menu and select **Service Processor**.



3. On the **Actions** menu, select **Update**.

4. Use one of the following methods to select the HPE 3PAR SP update package.

- **Use a pre-loaded SP update package**—To use a pre-loaded SP update package, from the **Update** dialog, select the Service Processor version from the **Available update package(s)** list.

The pre-loaded list contains HPE 3PAR SP software versions that were either automatically loaded for you from Hewlett Packard Enterprise or previously staged from an ISO image or DVD.

- **Load a different update package**—If the SP package is not listed in the **Available update package(s)** list, from the **Update** dialog, select **Load a different update package**. Then select one of the following options:
 - **ISO image**—Either drag or drop the image file in the file drop box or select **Choose File** to browse the local system for the file. When the file appears in the box, click **Start upload**.
 - **Service Processor DVD drive**—Import the update from the physical media drive of the Service Processor. Insert the media into the Service Processor media drive and click **Start upload**.

For all options, once selected, the software package is displayed as the default in **Available update package(s)**.

5. Click **Update** and then click **Yes, Update** to start the update process. The update progress is displayed on the Service Processor Update page.



Updating HPE 3PAR Service Processor software for SP 5.0.5 or above

If you are using SP 5.0.5 or later versions, follow the tasks provided in this chapter to update the SP software.

Review the HPE 3PAR Service Processor Release Notes

Procedure

1. Log on to the Service Console.
2. Open the Service Console main menu and select **Service Processor**.
3. Select the **Update** link that appears in the General section, or on the **Actions** menu, select **Update**.

3PAR Service Console

Search

1

?

Service Processor

Overview

Actions

General

Name

sp1213685

Model

VMware Virtual Platform

SP date/time

28 Jan, 2019 9:15:33 AM IST

Version

Current

5.0.5.0-

Recommended patches

5.0.5.90-2...

Update

Recommended versions

5.0.80.0-2...

Update

IP address

SP ID

SPa20no-d1ib3-kl2kn-iwe0j-bufv5

Firewall

Enabled - Permissive mode enabled

View firewall rules

Health

Up since

23 Jan, 2019 5:30:46 AM IST

Transfer status

Normal

Last transfer

28 Jan, 2019 9:01:23 AM IST

SP storage space

Normal

Service status

Normal

Service status description

Service normal (running)

Storage Systems

Connection Status	Name	Model	Serial Number
	SP_152	HPE_3PAR 8400	

Support

Scrub private information

Disabled

Email notification

Enabled

Allow software downloads

Enabled

Send support data to HPE

Enabled

HPE remote support access

Enabled

Receive update recommendation

Enabled

RAP Forwarding

Disabled

The **Install Service Processor Updates** dialog opens:





Install Service Processor Update?

Update Package

Current Service Processor version

5.0.5.0-


Available Updates

Update	Priority	Synopsis	Install Time	State	
5.0.5.0-	Recommended	HPE 3PAR Service Processor build SP-5.0.5.0-	—	Ready	
5.0.80.0-	Recommended	This package contains an update to the HPE 3PAR Service Processor.	<10 Minutes	Downloadable	

Load Package


Install

Cancel

4. In the **Available Updates** section, click on the  (**Release Notes**) icon that appears in the listed SP updates:
5. Download the *HPE 3PAR Service Processor Software 5.x Release Notes*.
6. Review the release notes for the SP version you will use for the update to:
 - Understand the enhancements and fixes
 - Verify minimum supported versions
 - Identify known issues

Update the HPE 3PAR Service Processor

This procedure is the same for installing SP patches and maintenance updates.

- 
IMPORTANT: Service Processor software updates may automatically restart the Service Processor to activate changes. It can take up to 5 minutes before the Service Processor is available again and you will be disconnected during that time. StoreServ data availability is not affected during the time that the Service Processor is restarting. To determine if the version you are installing will restart the Service Processor, see the *HPE 3PAR Service Processor Software 5.x Release Notes*.

Prerequisites

- Ensure that you have the SP software with the required version. If the SP software version you want to install is not yet available on the SP, you must download it. See **Downloading software product updates**.
- Ensure that you determine the supported update paths for SP software, by reviewing the *HPE 3PAR Service Processor Support Matrix* which is available on SPOCK:

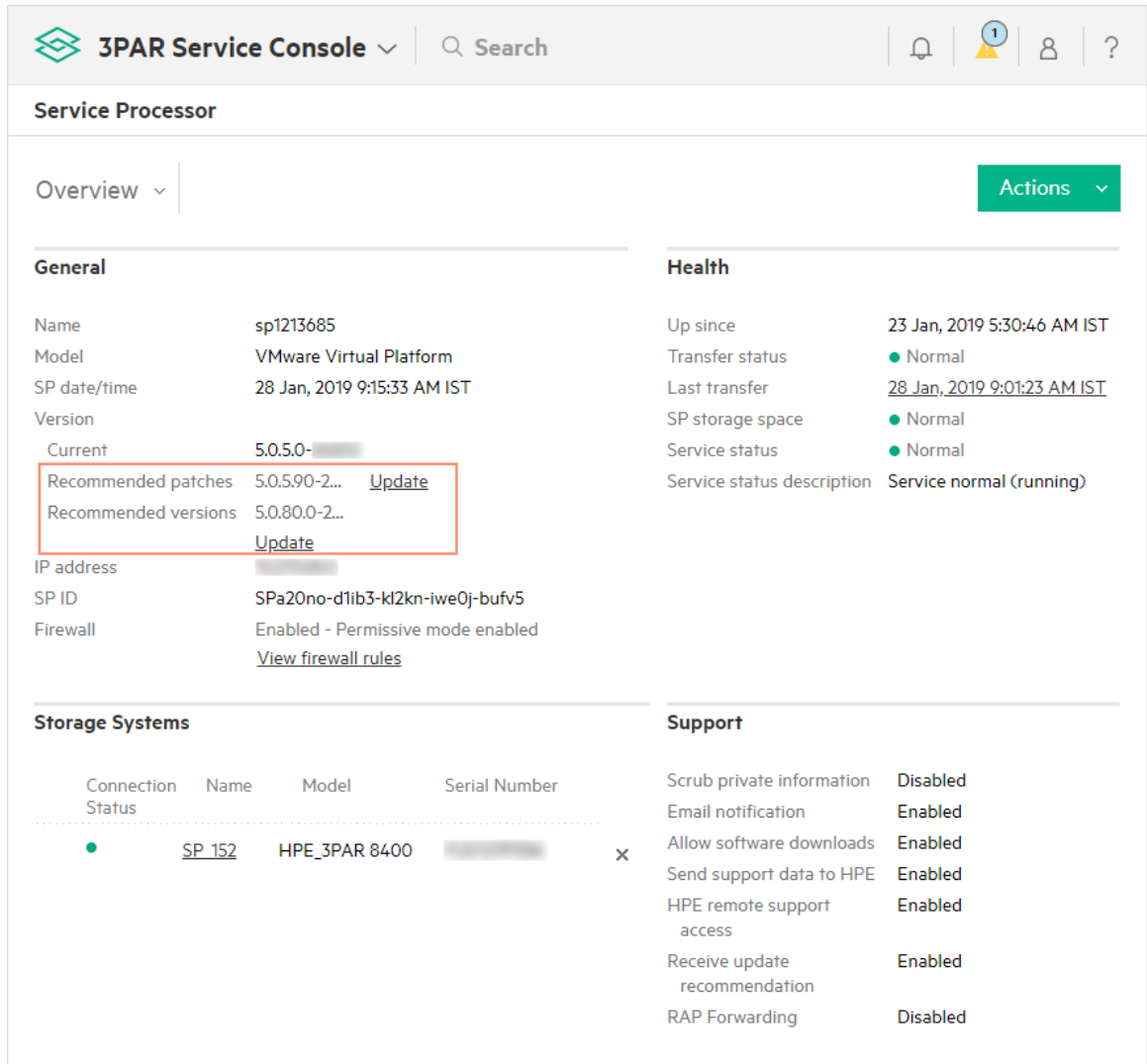
<http://www.hpe.com/storage/spock>

- Ensure that you review HPE 3PAR Service Console options in the *HPE 3PAR Service Processor Software 5.0.x User Guide* on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/docs>

Procedure

1. Log on to the Service Console.
2. Open the Service Console main menu and select **Service Processor**.
3. Select the **Update** link that appears in the General section, or on the **Actions** menu, select **Update**.



The screenshot displays the HPE 3PAR Service Console interface. At the top, there's a header with the '3PAR Service Console' logo and a search bar. Below the header, the 'Service Processor' section is active. It features a navigation menu on the left with 'Overview' selected. The main content area is divided into several sections: 'General', 'Health', 'Storage Systems', and 'Support'. In the 'General' section, the 'Recommended patches' and 'Recommended versions' links are highlighted with a red box. The 'Health' section shows the service status as 'Normal'. The 'Storage Systems' section contains a table with one entry: 'SP 152' with model 'HPE_3PAR 8400'. The 'Support' section lists various settings like 'Scrub private information' and 'Email notification'.

Connection Status	Name	Model	Serial Number
●	SP 152	HPE_3PAR 8400	

The **Install Service Processor Updates** dialog appears.

4. Use one of the following methods to select the HPE 3PAR SP update package:
 - **Use a ready SP update package**—Select the Service Processor update that shows as *Ready* in the **Available updates** list.

The ready list contains HPE 3PAR SP software versions that were either automatically loaded for you from Hewlett Packard Enterprise or previously staged from an ISO image or DVD.



The update details include a  (link) to release notes which are specific to the update.

Install Service Processor Update?

Update Package

Current Service Processor version5.0.5.0-

Available Updates

Update	Priority	Synopsis	Install Time	State	
5.0.5.0-	Recommended	HPE 3PAR Service Processor build SP-5.0.5.0-	—	Ready	
5.0.80.0-	Recommended	This package contains an update to the HPE 3PAR Service Processor.	<10 Minutes	Downloadable	

Load Package

Install

Cancel

- **Load a downloadable update package**—If the SP package that you have to install is not listed as a ready package in the **Available update package(s)** list, select a downloadable update and then select **Load package**. In the **Load Update Package** dialog, select the downloadable update, and click **Load**.



Load Update Package?

Source
☐ ISO image
☐ Service Processor DVD drive
☒ InfoSight

Downloadable updates

Update	Priority	Synopsis
SP-5.0.5.90- 10000	10000000	This package contains an update to the HPE 3PAR Service Processor.

Load

Close

NOTE: InfoSight is the default option in the **Load Update Package** dialog which allows you to select and load the downloadable update.

- **Load a local (different) update package:** To load your own update package (available as a local resource), choose **Load Package** in the **Install Service Processor Update** dialog. Then select one of the following options:
 - **ISO image**—Either drag and drop the image file in the file drop box or select **Choose File** to browse the local system for the file. When the file appears in the box, click **Start upload**.
 - **Service Processor DVD drive**—Import the update from the physical media drive of the Service Processor. Insert the media into the Service Processor media drive and click **Start upload**.

For all options, once selected, the software package is displayed as the default in **Available updates**.

5. Click **Install**. Then click **Yes, update** in the confirmation dialogue that appears. The update progress is displayed on the Service Processor Update page.

More information

[Logging in to the HPE 3PAR Service Console](#)

Updating HPE 3PAR OS software

1. Review the HPE 3PAR OS update details
2. Verify the HPE 3PAR SP 5.x requirements
3. Verify the HPE 3PAR OS requirements
4. Perform a health check on the storage system
5. Stage the Upgrade tool
6. Update the HPE 3PAR OS for SP 5.0.x less than 5.0.5
7. Update the HPE 3PAR OS for SP 5.0.5 or above
8. Review the HPE 3PAR OS update results
9. Perform a health check on the storage system

Review the HPE 3PAR OS update details

Procedure

1. Download the release notes for the HPE 3PAR OS version to which you are updating. Release notes are available on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/docs>

2. Review the release notes to:
 - Understand the enhancements and fixes
 - Verify minimum supported versions
 - Identify known issues

Verify the HPE 3PAR SP 5.x requirements

Procedure

1. Open the Service Console main menu and select **Service Processor**.
2. In the **General** panel on the **Service Processor Overview** view, verify that the **Current Version** field displays the minimum SP version listed in the applicable HPE 3PAR OS release notes.

If the HPE 3PAR SP version is not at the minimum version required, you must update the HPE 3PAR SP before upgrading the HPE 3PAR OS.

More information

[Update the HPE 3PAR Service Processor](#)



Verify the HPE 3PAR OS requirements



CAUTION: It is highly recommended that the array has all available and applicable patches applied before beginning an update.

Procedure

1. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
2. Select the storage system. An overview of the storage system is displayed.
3. In the **General** panel on the **Overview** view, verify that the current HPE 3PAR OS version for the selected storage system is at the minimum level listed in the applicable HPE 3PAR OS release notes.

Perform a health check on the storage system

Procedure

1. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
2. Select the storage system. An overview of the storage system is displayed.
3. Click **Actions**, then select **Check health**.
4. Verify that the storage system does not have any issues.
5. Resolve any issues found by the check health action before proceeding.
6. Click **Close**.

Stage the Upgrade tool

Prerequisites

- Review information on the Upgrade tool in the HPE 3PAR OS Upgrade Tools Release Notes on the Hewlett Packard Enterprise Information Library:
<http://www.hpe.com/info/storage/docs>
- Download the Upgrade tool to a local file. See **Downloading software product updates**.
- If needed, review HPE 3PAR Service Console options in the *HPE 3PAR Service Processor Software 5.0.x User Guide* on the Hewlett Packard Enterprise Information Library:
<http://www.hpe.com/info/storage/docs>

Procedure

1. Log in to the Service Console.
2. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
3. Select the storage system. An overview of the storage system is displayed.



4. On the **Actions** menu, select **Update HPE 3PAR OS**. The **Update** window appears.
5. Load the Upgrade tool. Always load the Upgrade tool for both patch and non-patch updates. If the Upgrade tool package is not listed in the **Available update package(s)** list, from the **Select Update** view, of the **Update** dialog, select **Load a different update package**. Then select one of the following options:
 - **ISO image**—Either drag or drop the image file in the file drop box or select **Choose File** to browse the local system for the file. When the file appears in the box, click **Start upload**.
 - **Service Processor DVD drive**—Import the software package from the physical media drive of the Service Processor. Insert the media into the Service Processor media drive and click **Start upload**.

For all options, once selected, the software package is displayed as the default in **Available update package(s)**.

NOTE: At this point, you have only loaded the Upgrade tool. Selecting the **Run Checks** option during the update of the HPE 3PAR OS will automatically install the Upgrade tool.

More information


[Logging in to the HPE 3PAR Service Console](#)

Update the HPE 3PAR OS for SP 5.0.x less than 5.0.5

This procedure is the same for installing patches and maintenance updates.

Prerequisites

- Ensure that the upgrade tool is staged.

 **IMPORTANT:** For every OS update, always download and stage the latest version of the Upgrade tool.

If you enable the **Allow software downloads** option through the Service Console, the Upgrade tool is not automatically downloaded.

The Upgrade tool is only staged in the Service Console and does not require installation.

- Ensure that the required OS software is available on the SP. If the OS software version you want to install is not yet available on the SP, you must download the HPE 3PAR OS software package. See **[Downloading software product updates](#)**.
- Ensure that the following system administration activities are stopped or completed before initiating an online update. These activities must remain stopped until the online update is completed.
 - Provisioning
 - Physical or Virtual Copy
 - Snap Removal
 - Dynamic Optimization

You do not have to stop Remote Copy and Remote Copy groups.

- Ensure that you have reviewed the HPE 3PAR Service Console options in the *HPE 3PAR Service Processor Software 5.0.x User Guide* on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/3parsp-docs>



Procedure


1. Log on to the Service Console.
2. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
3. Select the storage system. An overview of the storage system is displayed.
4. On the **Actions** menu, select **Update HPE 3PAR OS**. The **Update** window appears.
5. Use one of the following methods to select the HPE 3PAR OS update package.

- **Use a pre-loaded 3PAR OS update package**—To use a pre-loaded OS update package, from the **Update** dialog, select the OS version from the **Available update package(s)** list.

The pre-loaded list contains HPE 3PAR OS software versions that were either automatically loaded for you from Hewlett Packard Enterprise or previously staged from an ISO image or DVD.

On the **Update Method** view, **Online Update** and **Admit hardware on completion** are selected by default.

NOTE: When the **Admit hardware on completion** option is selected, the `admithw` command is run automatically after an update. If you choose not to run the command at that time, you can start it later manually from the **Actions** menu.

 **IMPORTANT:** Always run `admithw` after an update.

- **Load a different update package**—If the OS package is not listed in the **Available update package(s)** list, from the **Select Update** view of the **Update** dialog, select **Load a different update package**. Then select one of the following options:
 - **ISO image**—Either drag or drop the image file in the file drop box or select **Choose File** to browse the local system for the file. When the file appears in the box, click **Start upload**.
 - **Service Processor DVD drive**—Import the update from the physical media drive of the Service Processor. Insert the media into the Service Processor media drive and click **Start upload**.

For all options, once selected, the software package is displayed as the default in **Available update package(s)**.

6. Select one of the following Update options and perform the HPE 3PAR OS update:
 - **Online Update (default)**—An update is applied to all the nodes and the nodes reboot one at a time automatically. Recommended update method. Required for patch updates or when reverting a patch update.
 - a. To load and run checks, click **Run Checks** from the **System Readiness** view of the **Update** dialog.
 - b. Click **Update**.
 - c. If File Persona is enabled, confirm the update. Enter **ONLINE** and click **Yes, Update**.

The **Customer Self Update Agreement** page is displayed.

- **Offline Update**—All hosts connected to the storage system must be shut down before the update. All nodes are updated and rebooted at the same time. The storage system is unavailable to the hosts during the update.

Offline update is the only option available when reverting to the prior HPE 3PAR OS version.




- a. To load and run checks, click **Run Checks** from the **System Readiness** view of the **Update** dialog.
- b. Click **Update**.
- c. To confirm the update, enter **OFFLINE** and click **Yes, Update**.

The **Customer Self Update Agreement** page is displayed.

NOTE:

- The Upgrade tool is automatically installed when you click **Run Checks** from the **System Readiness** view of the **Update** dialog. The Upgrade tool version is listed in the `Upgrade Check Scripts` field in the `showversion -a -b` output.
- Installing a software patch does not require restarting the controller nodes.
- Updating the HPE 3PAR OS can cause a restart of the affected OS components. When components are restarted, events and alerts are generated, which is an expected behavior. The system continues to serve data, but existing CLI or SSMC sessions could be interrupted.

-
7. Read the **Customer Self Update Agreement** and click **Agree** to proceed with the update.

 **IMPORTANT:** An update cannot be canceled after it is started.

The update starts and the status of the update is displayed in the update dialog box.

8. Monitor the progress of the update in the **Update Details** view.

The possible statuses are Running, Completed, or Failed. If the update fails, contact Hewlett Packard Enterprise support. Details for each step are also shown following the step.

More information

[Logging in to the HPE 3PAR Service Console](#)


[Stage the Upgrade tool](#)

Update the HPE 3PAR OS for SP 5.0.5 or above

To update the HPE 3PAR OS for SP version 5.0.5 or above, follow the below procedure:

Prerequisites

- Ensure that the Upgrade tool is staged.

 **IMPORTANT:** For every OS update, always download and stage the latest version of the Upgrade tool.

If you enable the **Allow software downloads** option through the Service Console, the Upgrade tool is not automatically downloaded.

The Upgrade tool is only staged in the Service Console and does not require installation.

- Ensure that the required OS software is available on the SP. If the OS software version you want to install is not yet available on the SP, you must download the HPE 3PAR OS software package. See **[Downloading software product updates](#)**.
- Ensure that the following system administration activities are stopped or completed before initiating an online update. These activities must remain stopped until the online update is completed.



- Provisioning
- Physical or Virtual Copy
- Snap Removal
- Dynamic Optimization

You do not have to stop Remote Copy and Remote Copy groups.

- If needed, review HPE 3PAR Service Console options in the *HPE 3PAR Service Processor Software 5.0.x User Guide* on the Hewlett Packard Enterprise Information Library:

<http://www.hpe.com/info/storage/3parsp-docs>

Procedure

1. Log on to the Service Console.
2. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
3. Select the storage system.

The following kind of view appears. If an update is available for your array, the **Update** link appears in the General section.

The screenshot displays the HPE 3PAR Service Console interface. At the top, there is a navigation bar with the '3PAR Service Console' logo and a search bar. Below this, a sidebar on the left shows a list of systems, with 'SP_152' selected. The main content area is divided into several sections:

- Alerts:** A yellow banner at the top of the main content area displays a critical alert: '12 authentication failures in 120 secs. (Critical) Degraded' with a timestamp of '28 Jan, 2019 7:10:14 AM IST'.
- General:** This section contains system metadata:
 - Name: SP_152
 - IP address: [Redacted]
 - Model: HPE_3PAR 8400
 - WWN: [Redacted]
 - Serial number: [Redacted]
 - System date/time: Jan 28, 2019 9:09:24 AM IST
 - HPE 3PAR OS version: 3.3.1.460 (MU3)+P62,P63
 - Recommended patches: P64, P67, ...
 - Last checked: Jan 28, 2019 8:55:49 AM IST
 - Cloud analytics: HPE InfoSight
 - Service processor: SPa20no-d1ib3-kl2kn-iwe0j-burfv5
 - Maintenance mode: Disabled
- Health:** This section shows the system's operational status:
 - Up since: 7 Jan, 2019 6:43:32 PM IST
 - State: Normal (indicated by a green dot)
 - Details: none
- Resources:** This section provides a visual overview of system resources:
 - Data cache: 75% full (23.99 GiB used, 8.01 GiB free)
 - Control cache: 63% full (20.06 GiB used, 11.94 GiB free)
 - CPU usage: 0% (0 MHz used, 52,656 MHz available)
- Configuration Summary:** This section lists key configuration details:
 - Nodes: 2 controller nodes
 - Ports: 10 ports
 - Enclosures: 1 drive enclosure
 - Drives: 10 physical drives

- Click on the **Update** link in the General section, or click on **Actions > Update HPE 3PAR OS**, or in the **Overview** drop-down, select **Update**.

The Update page opens as shown below:

SP_152 Update Actions

▲ An OS update is available: OS-3.3.1. -EMU1 (Recommended) Degraded 28 Jan, 2019 9:20:08 AM IST All 0 2 0

OS Summary

Current version 3.3.1. (MU3)+P62,P63
Recommended patches P64, P67, P673

Update Overview

Status Completed

From version	Target	Installer	Estimated time
3.3.1. (MU3)+P62	—	admin	—

Step	Date	State
Start update	23 Jan, 2019 9:56:53 AM IST	Completed
Run pre-update actions	23 Jan, 2019 9:56:53 AM IST	Completed
Apply patch	23 Jan, 2019 9:56:53 AM IST	Completed
Run post-update actions	23 Jan, 2019 9:56:53 AM IST	Completed

Details

Available Updates

Update	Priority	Synopsis	Install Time	State	
3.3.1. -P673	Recommended	HPE 3PAR OS Patch 673	<10 Minutes	Ready	x
3.3.1. -P67	Recommended	HPE 3PAR OS Patch 67	<5 Minutes	Ready	x
3.3.1. -P64	Recommended	HPE 3PAR OS Patch 64	<5 Minutes	Ready	x
3.3.1. -EMU1	—	—	—	Ready	x

[Load Package](#) [Install](#)


Update History

Update	Installation Date	Synopsis	Installer	
3.3.1. (T05)+P63	23 Jan, 2019 9:50:18 AM IST	patch, including MBKP and EGA/EMU	admin	Revert
3.3.1. (T05)+P62	22 Jan, 2019 3:02:16 PM IST	patch from CSU gate	admin	

1	OS Summary	Summary of applicable updates with 'severity'.
2	Update Overview	Ongoing or last update status
3	Available Updates	All applicable updates to this array with details.
4	Load Package	Download the updates from HPE HQ to array.
5	Update History	History of updates.
6	Revert	Revert the version if needed.
7	Install	Install the updates.
8	x	Remove package on the array.
9		Launches specific release notes.
10	Yellow bar	Updates availability alerts with severity.

NOTE: The **state** of an update can have the following values:

- **Ready:** The package has staged on the array and is ready to be installed. SP version compatibility is met.
 - **Not ready:** The package has staged on the array, but there is an SP version mismatch.
 - **Downloadable:** The package can be manually downloaded from HPE.
 - **Blacklisted:** The package is blacklisted for this array version.
-

5. Go through the release notes of the listed update packages by clicking on the  (**Release Notes**) icon. This way you can do a comparative analysis of the available updates.
6. See the below references to proceed further:
 - To stage a downloadable update on the array, see [**Stage a downloadable update**](#)
 - To stage a local update on the array, see [**Stage a different update**](#)
 - To install a ready patch update, see [**Install a ready patch update**](#)
 - To install a major/maintenance update, see [**Install a major \(maintenance\) update**](#)
 - To revert an update, see [**Revert an update**](#)

Stage a downloadable update

Prerequisites

Ensure that you have followed steps 1 to 5 of the procedure [**Update the HPE 3PAR OS**](#).

Procedure

1. On the Update page, select the downloadable patch update or major update that you need to load (stage on the array) from the available updates section. Then click on **Load Package**.

The **Load Update Package** dialog appears:



Load Update Package?

Source
☐ ISO image
☐ Service Processor DVD drive
☒ InfoSight

Downloadable updates

Update	Priority	Synopsis
OS-3.3.1 -P674	Recommended	HPE 3PAR OS Patch 674

Load

Close

2. Select the update and click on **Load**.

The update is downloaded and gets listed in the **Available Updates** section of the **Update** page in the **Ready** state.

NOTE: Infosight is the default option in the **Load Update Package** dialog which allows you to select and load the downloadable update. Other options are not to be used in this procedure.



TIP: A maximum of **five** OS update packages can be staged on the array.

Stage a different update

Prerequisites

Ensure that you have followed steps 1 to 5 of the procedure **Update the HPE 3PAR OS**, and your required update package is not listed in the **Available Updates** section on the **Update** page of the system.

Procedure

1. In the Available Updates section, click **Load Package**.

The **Load Update Package** dialog appears.

2. Select one of the following options:

- **ISO Image:** Either drag or drop the image file in the file drop box or select **Choose File** to browse the local system for the file. When the file appears in the box, click **Start upload**.
- **Service Processor DVD drive:** Import the update from the physical media drive of the Service Processor. Insert the media into the Service Processor media drive and click **Start upload**.

Once uploaded, the software package is displayed as a ready update in **Available Updates** section of the Update page.



NOTE: If you want to restage the package, click **Load Package** and repeat step 2. However, there must be no ready/not-ready package selected in the **Available Updates** section when you click **Load Package**. If the package is selected already, click the row again to de-select it, and then proceed with restaging through **Load Package**.



TIP: A **maximum of five** OS update packages can be staged on the array.

Install a ready patch update

Prerequisites

- Ensure that you have not disabled the following highlighted properties in your Service Processor settings:

Service Processor Settings

Service Processor Firewall

?

Service Processor Firewall

Support

☒ Show advanced settings

Send support data to HPE

Enabled

Scrub private information from support data

Disabled

HPE remote support access

Enabled

Receive update recommendation

Enabled

Allow software downloads

Enabled

Remote support proxy

Enabled

Protocol

HTTP

Proxy name/IP

web-proxy.ind.hp.com

Proxy Port

8080

Proxy authentication

Disabled

Send email notifications of system alerts

Enabled

Mail host name/IP

smtp.hpe.com

Mail host domain

hpe.com

From Email

sp15213685@hpe.com

Send test email

Disabled

Checked: Show advanced settings

OK

Cancel



NOTE: These properties are enabled by default. If you disable them, you will not receive software downloads or update recommendations from the HPE headquarters.

- Ensure that you have followed steps 1 to 5 of the procedure **Update the HPE 3PAR OS**.

Procedure

1. On the Update page, select the ready patch update that you need to install from the available updates section. Then click on **Install**.

The **Install Storeserv OS Update** dialog appears.

2. Select the check-box which says 'I have read the release notes and understand the implications of installing the update'.
3. Click on the **Check** for system readiness.

The installation pre-checks are run. Once the pre-checks are complete, the following message appears on the screen: "You can now initiate an update on the StoreServ system."

NOTE: The **Update Firmware** option appears if a firmware update has to be installed for the update package. It is enabled by default. If you disable this option, you must use the **Update Firmware** action on the Update page soon after applying the patch update.

4. Click on **Install**.

The update installation completes and the **Update Overview** is updated according to the update results. The **Update History** is also updated.

NOTE: The installer information (e.g. admin) appears in Update overview and the Update history only if 3PAR OS patch 3.3.1 MU3 + P62 or greater is installed.

Update Overview

Status	Failed			
Current version	Target version	Installer	Estimated time	
3.3.1 (MU3)+P62,P63,P64,P655	3.3.1.4 (MU3)+P62,P63,P64,P67	admin	—	

Otherwise for any versions of 3PAR OS prior to 3.3.1 MU3 + P62, "-" is displayed instead of the installer name .

NOTE: Following are the possible status values of update:

- **Running:** Update is in progress.
- **Completed:** Update completed successfully.
- **Failed:** Update has failed.
- **Stopped:** Update can be resumed or aborted. **Resume** and/or **Abort** link appears next to the status based on the type of update. Patch updates can only be resumed if stopped.



NOTE:

- The Upgrade tool is automatically installed when you click **Check** from the System Readiness view of the Update dialog. The Upgrade tool version is listed in the `Upgrade Check Scripts` field in the `showversion -a -b` output.
 - Installing a software patch does not require restarting the controller nodes.
 - Updating the HPE 3PAR OS can cause a restart of the affected OS components. When components are restarted, events and alerts are generated, which is an expected behavior. The system continues to serve data, but existing CLI or SSMC sessions could be interrupted.
-

Install a major (maintenance) update

Prerequisites

- Ensure that you have not disabled the following highlighted properties in your Service Processor settings:



Service Processor Settings
Service Processor Firewall
?

Service Processor Firewall

Support

☒ Show advanced settings

Send support data to HPE
Enabled

Scrub private information from support data
Disabled

HPE remote support access
Enabled

Receive update recommendation
Enabled

Allow software downloads
Enabled

Remote support proxy
Enabled

Protocol
HTTP

Proxy name/IP
web-proxy.ind.hp.com

Proxy Port
8080

Proxy authentication
Disabled


Send email notifications of system alerts
Enabled

Mail host name/IP
smtp.hpe.com

Mail host domain
hpe.com

From Email
sp15213685@hpe.com

Send test email
Disabled


Checked: Show advanced settings
OK
Cancel

NOTE: These properties are enabled by default. If you disable them, you will not receive software downloads or update recommendations from the HPE headquarters.

- Ensure that you have followed steps 1 to 5 of the procedure **Update the HPE 3PAR OS**.

Procedure

1. On the Update page, click on the major update (MU) listed in the Available Updates section. Then click **Install**.



▲ s471
Update ▾
⌵
Actions ▾

▲ A patch update is available: OS-3.31.460-P63 (Critical) Degraded
Nov 25, 2018 5:34:33 AM PST
All ▾
0
▲ 6
● 1 ▾

Status	Completed			
From version	Target version	Installer	Estimated time	
3.31.460 (MU3)+P62,P64,P655	3.31.P655	hpepartner	—	

● Step
Date
State

● Start update	Nov 29, 2018 2:51:08 PM PST	Completed
● Revert patch	Nov 29, 2018 2:51:08 PM PST	Completed

► Details

Available Updates

Update	Priority	Synopsis	Install Time	State		
3.31.460-P63	Critical	Adds quality improvements including OS upgrade and node down recovery	<10 Minutes	Ready		×
3.31.460-P655	Recommended	Provides critical quality improvements	<5 Minutes	Ready		×
3.31.460-MU4	Recommended	Supports NVMe SCM and 32Gb FC features	<45 Minutes	Ready		×
3.31.460-P67	Recommended	dummy patch superseding another, multibase	—	Blocked		×

Load Package
Install

NOTE: If the MU is in the downloadable state, first bring it to the Ready state using the **Load Package** option.

The **Install Storeserv OS Update** dialog appears.

- Select the check-box which states "I have read the release notes and understand the implications of installing the update".
- Change the update method to **Advanced Online update**.



Install StoreServ OS Update?

Update Package

Current HPE 3PAR OS version3.3.1.460 (MU3)+P62,P64

	Priority	Synopsis	Install Time	
OS-3.3.1.460-MU4	Recommended	Supports NVMe SCM and 32Gb FC features	<45 Minutes	

☐ I have read the release notes and understand the implications of installing the update

Update Method

Caution: This update requires node reboots. Confirm multipath connections are configured for all hosts. Incorrect multipath configuration may cause outage during the installation.

☐ Online update (Recommended)

☒ Advanced Online update

☐ Offline update

☒ Update Firmware

Select to perform an online update, which will pause the task after each node is rebooted. At each pause you will have the option of resuming the update or reverting back to the previous OS version. No connectivity will be lost during an advanced online update.

Update Details

Action	Description
Click 'Check' to load actions.	

Changed: Update Method to "Advanced Online update"

Install

Cancel

No connectivity is lost during an advanced online update.

- Click on **Install**.

Revert an update

Prerequisites

Ensure that you have an **Update History** with minimum one major/maintenance update (MU) on the Systems' Update page.

Procedure

- In the Update History on the Update page, click on **Revert** that appears next to the latest MU.

The **Revert StoreServ OS update** dialog appears.

- Click on **Check**.

The SP performs system readiness checks. After the checks are completed, you get a message that "You can now initiate an update on the StoreServ system".

Updating HPE 3PAR OS software 28

3. Click on **Install**. In the warning dialog that appears, confirm that you have read and understood the requirements and consequences of reverting an update by selecting the check-box, and click **Yes, update**.
4. Click **Agree** on the Customer Self Update agreement.

The update is reverted and the revert-details are displayed in the **Update overview** section on the Update page. The **Update History** is also modified in accordance.

Review the HPE 3PAR OS update results

Perform the following steps after the update completes and the `admithw` command runs.

Procedure

1. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
2. Select the storage system. An overview of the storage system is displayed.
3. Perform one of the following to verify the update version. For a patch update, verify that the patch is installed by checking the patch number displayed.
 - In the **General** panel of the **Overview** view, verify the OS version listed under **Current**. You can also verify the OS release version and patches by selecting the **Software** view.
 - Click **Actions**, then select **Start CLI session**. Enter `showversion -a -b` in the CLI command field and verify the update version.

```
Release version x.x.x.xxx  
Patches: Pxx,Pxx
```

Component Name	Version
CLI Server	x.x.x.xxx
CLI Client	x.x.x.xxx
System Manager	x.x.x.xxx
Kernel	x.x.x.xxx
TPD Kernel Code	x.x.x.xxx

Perform a health check on the storage system

Procedure

1. Open the Service Console main menu and select **Systems**. Only one available storage system is displayed in the list.
2. Select the storage system. An overview of the storage system is displayed.
3. Click **Actions**, then select **Check health**.
4. Verify that the storage system does not have any issues.
5. Resolve any issues found by the check health action before proceeding.
6. Click **Close**.



Complete post HPE 3PAR OS update tasks

Procedure

1. If **Admit hardware on completion** was not selected for the update, do the following to manually run `admit hw`. This action admits new hardware into the system and updates firmware on new and existing hardware.
 - a. On the Service Console main menu, select **Systems**.
 - b. Click **Actions**, then select **Admit Hardware**.
 - c. Click **Yes, Admit Hardware**.
2. Apply any additional relevant patches.

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



Websites

Hewlett Packard Enterprise general websites:

Information Library

www.hpe.com/info/EIL

Customer Self Repair Services Media Library

www.hpe.com/support/sml-csr

InfoSight

infosight.hpe.com

Safety and Compliance

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

Software Depot

www.hpe.com/support/softwaredepot

Software License Manager

enterpriselicense.hpe.com/

Software updates and licensing

www.hpe.com/downloads/software

Support Center

www.hpe.com/support/hpesc

SPOCK

www.hpe.com/storage/spock

White papers and analyst reports

www.hpe.com/storage/whitepapers

Hewlett Packard Enterprise storage websites:

Data Storage

www.hpe.com/info/storage

Information Library Storage

www.hpe.com/info/storage/docs



Support and other resources

Accessing Hewlett Packard Enterprise Support

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

<https://www.hpe.com/support/hpesc>

Hewlett Packard Enterprise Support Center: Software downloads

<https://www.hpe.com/support/downloads>

Software Depot

<https://www.hpe.com/support/softwaredepot>

- To subscribe to eNewsletters and alerts:
<https://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:
<https://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.

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

<https://www.hpe.com/services/getconnected>

HPE Proactive Care services

<https://www.hpe.com/services/proactivecare>

HPE Datacenter Care services

<https://www.hpe.com/services/datacentercare>

HPE Proactive Care service: Supported products list

<https://www.hpe.com/services/proactivecaresupportedproducts>

HPE Proactive Care advanced service: Supported products list

<https://www.hpe.com/services/proactivecareadvancedsupportedproducts>

Proactive Care customer information

Proactive Care central

<https://www.hpe.com/services/proactivecarecentral>

Proactive Care service activation

<https://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

<https://www.hpe.com/support/ProLiantServers-Warranties>

HPE Enterprise and Cloudline Servers

<https://www.hpe.com/support/EnterpriseServers-Warranties>

HPE Storage Products

<https://www.hpe.com/support/Storage-Warranties>

HPE Networking Products

<https://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:

<https://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:

<https://www.hpe.com/info/reach>

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

<https://www.hpe.com/info/ecodata>

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

<https://www.hpe.com/info/environment>

Documentation feedback

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