

HP 3PAR Service Processor Software 4.1.0 MU2 Upgrade Instructions

Abstract

These instructions explain how to update the HP 3PAR Service Processor software from version 4.1.0+P002 or 4.1.0+P001+P002 or 4.1.0.GA-78 (MU1) to 4.1.0 MU2 at a customer site by using a DVD, the Secure Service Collector-6 website, or SPOCC.



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1 Introduction

This document describes how to update the HP 3PAR Service Processor (SP) 4.1.0 software at a customer site via DVD or via the Axeda website.

The maintenance update, SP-4.1.0.GA-97 (MU2), applies only to SP-4.1.0.GA-60+P002, SP-4.1.0.GA-60+P001+P002, and SP-4.1.0.GA-78 (MU1).

NOTE: Before you update the SP, refer to the *HP 3PAR Service Processor 4.1.x Release Notes* and *HP 3PAR Service Processor 4.1.x Service Notes*. To access these documents, go to the HP 3PAR StoreServ Storage site, scroll down to **Support**, and then click the link for your product:

<http://www.hp.com/go/3par>

NOTE: To rebuild or restore the SP software, see the *HP 3PAR Service Processor Software Rebuild Instructions Guide*, located in the Service Access Workbench site at http://sawpro.atlanta.hp.com/km/saw/view.do?docId=emr_na-c02982214&hsid=48035079&sz=1750758.

NOTE: The InServ Storage Server has been rebranded as HP 3PAR Storage System. There are instances in this document where menu items and command output refer to the HP 3PAR Storage System as InServ or InServ Storage Server.

2 SP Software 4.1.0 MU2 Overview

The SP-4.1.0.GA-97 update is available on DVD or as a self-install package for deployment to Secure Network Mode devices.

- Update Name: Service Processor Software SP-4.1.0.GA-97 (MU2)
- Prerequisite: Prior to the installation of SP-4.1.0.GA-97, the SP software level must be at version SP-4.1.0.GA-60+P002 or SP-4.1.0.GA-78 (MU1).

Fixes

The SP 4.1.0 MU2 release includes the following enhancements:

- After upgrading to SP 4.1 MU2, Service Processors that are configured in Secure Network Mode (Axeda) will be automatically reconfigured to connect to new servers at HP.
- Starting with SP 4.1 MU2, all newly configured Service Processors (both physical and virtual) will have a Service Processor ID (SP ID) that is based on the serial number for the HP 3PAR StoreServ Storage system that is attached to the Service Processor. The SP ID will be 12 characters long and have the following format:

SP000+<seven-digit 3PAR StoreServ serial number>

For example, if the serial number of the StoreServ storage system that is to be attached to the Service Processor is 1234567, the Service Processor SP ID will be SP0001234567.

For more information, see the *HP 3PAR Service Processor Software 4.1.x Release Notes* and *HP 3PAR Service Processor Software 4.1.x Service Notes*.

Installation Information

Make sure that SP-4.1.0.GA-60+P002 or SP-4.1.0.GA-78 is installed before you perform any upgrade work or run an InSplore.

With the upgrade of the Service Processor to SP-4.1.0-GA-97, Service Processors that are configured in Secure Network Mode (Axeda) are automatically reconfigured to connect to new servers at HP. The new servers' host names and IP addresses are as follows:

- Collector Server:
 - <https://remote3par.houston.hp.com> (15.201.225.95)
- Remote Support Connectivity Global Access Servers (GAS):
 - g4t2481g.houston.hp.com (15.201.200.205)
 - g4t2482g.houston.hp.com (15.201.200.206)
 - g9t1615g.houston.hp.com (15.240.0.73)
 - g9t1616g.houston.hp.com (15.240.0.74)

Before you perform this upgrade, make sure there are no firewall restrictions to these servers on port 443. Firewall and/or proxy server configuration should be updated to allow outbound connections from the Service Processor to the new servers.



CAUTION: Failure to confirm firewall settings may result in the loss of the file transfer.

3 Supported Update Paths

The following table lists the supported SP software level update paths.

From SP OS Level	To Level
SP-4.1.0.GA-60+P002	SP-4.1.0.GA-97
SP-4.1.0.GA-60+P001+P002	SP-4.1.0.GA-97
SP-4.1.0.GA-78 (MU1)	SP-4.1.0.GA-97

If you are upgrading from SP Software version 2.5.1 or 2.5.2, see the *HP 3PAR Service Processor Software 2.5.x Upgrade Instructions*.

Supported Service Processors

The following Service Processors are supported with release level 4.1.

Service Processor	Platform type	Supported models
Virtual Service Processor	Virtual	ESXi 4.x, ESXi 5.x
HP ProLiant	Physical	DL320e, DL360e
Supermicro	Physical	Supermicro II

NOTE: For the SP 4.1 release, the SP ID range uses one of the following formats:

- 7-character SP ID: The literal "SP" string (two characters) + five digits (for example, SP09997). This ID format is used for legacy SPs.
- 12-character SP ID: The literal "SP000" string (five characters) + the HP 3PAR StoreServ seven-digit 3PAR serial number that is located on a label affixed to the node enclosure (DCN1). The label is on a tab on the back right of the enclosure near Power Cooling Module1 (PCM 1, the PCM on the right). For example, if the HP 3PAR StoreServ 3PAR serial number is **1601234**, the Service Processor ID will be **SP0001601234**.

4 SP Pre-Update Task Overview

Before updating the SP software, perform the following SP pre-update tasks to ensure proper installation:

- “Verifying the Service Processor Software, Base Image Version, and Processes” (page 7)
- “Verifying Communication Between the SP and the Storage System” (page 8)

NOTE: For additional support, contact an authorized HP 3PAR Authorized Service Provider.

Verifying the Service Processor Software, Base Image Version, and Processes

Before applying the SP software, verify the current SP OS software and base image level. You can do this from SPMAINT or from SPOCC.

Verifying by using SPMAINT

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. Search for the SP Version package in the output to verify that the current level meets the required minimum SP level for an upgrade.

The following is an example of output from SP 4.1.0.GA-60 (partial output shown):

```
1.1      Display SP Version

          SP Software Version

SP-4.1.0.GA-60;001,002

SP Base Image Version:      Red Hat Enterprise Linux Server release 6.1
(Santiago)
SP Version:              4.1.0.GA-60
SP Patches:                 001 002
InFormOS release (3.1.2):   3.1.2.278
InFormOS patches (3.1.2):   01
More detail is available in the latest SPLOR or spconfig data.

Press <enter/return> to continue
```

5. Press **ENTER** to return to the **SP Control** menu.
6. Type 13 for **Display SP status** to check the processes that are running. Save the SP status output to compare with the output in [Step 8](#) of “Installing the SP 4.1.0 MU2 Software by Using Physical Media.”

The following is an example of the output for 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 9 httpd server processes running

spevent is running for the following clusters:
1400383 (s383)

spcollect processes are running as follows:
    biosmsg for 1400383 (s383)
    config  for 1400383 (s383)
    eeeprom for 1400383 (s383)
    environ for 1400383 (s383)
    evtlog  for 1400383 (s383)
    perform for 1400383 (s383)
    status  for 1400383 (s383)

SSAgent run status -
    agent is running
```

7. Press **ENTER** to return to **SP Control** menu.
8. Type **x** and then press **ENTER** to return to the SPMAINT main menu.

Verifying by using SPOCC

1. In SPOCC, click **SPmaint** in the left navigation pane.
2. Click **SP Control/Status**.
3. Under **Service Processor - SP Control Menu**, click **Display SP Version**.
4. In the **Installed Packages** list, look for the SP version to verify that the current level meets the required minimum SP level for an upgrade.
5. Click **SP Control Menu** to return to the SP Control menu.
6. Click **Display SP status**.
7. Save the SP status output to compare with the output in [Step 8](#) of “Installing the SP 4.1.0 MU2 Software by Using Physical Media.”

Verifying Communication Between the SP and the Storage System

To establish communication between the SP and the storage system, use the SPMAINT Interactive CLI for entering CLI commands on the system.

1. To start the interactive CLI, from the SPMAINT main menu, type **7** for **Interactive CLI for an InServ**.
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.

Known SP Update Issues

There are no SP update issues for SP-4.1.0.GA-97.

5 Installing the SP 4.1.0 MU2 Software by Using Physical Media

NOTE: If the SP is using Secure Network Mode (SNM), the Secure Service Collector will change when this upgrade is performed. Before you perform the upgrade, make sure that your firewall settings and/or proxy settings are updated to allow outbound connections from the Service Processor to the new servers over port 443 (https).

1. Insert the *HP 3PAR Service Processor Software 4.1.0 MU2 Software* DVD (version 4.1.0.GA-97) into the SP media drive.
2. From the SPMAINT main menu, type **=1.16.1**, and then press **ENTER**.
3. Enter the number corresponding to the **CDROM** option, and then press **ENTER**.

```
SP99104

1.16.1.ARCVSEL  SP software selection

Locally cached software levels

1      ==>    4.1.0.GA-60
2      ==>    tpd-3.1.2.278
3      ==>    TPD_Patch-3.1.2-01
4      ==>    CDROM

select 0 to enter an unlisted (local or network) location or to quit

Please indicate the update location to use
4
Mounting CDROM...
mount: block device /dev/sr0 is write-protected, mounting read-only

Standby while /mnt/cdrom is validated. Depending upon
the size and complexity of the distribution, this may take
some time to complete!! Please be patient...
```

During this process, the SP validates the contents of the DVD. If the checksum operations pass, a prompt to update from the DVD appears.

4. Type **y**, and then press **ENTER** to update the SP from the DVD.

```
SP99104

1.16.1.3          SP Update Go - NO GO
HP 3PAR Service Processor Menu

Transfer media: ethernet  Transfer status: Ok

Confirmation

Enter Control-C at any time to abort this process

Do You wish to update the SP from /mnt/cdrom/ServiceProcessor/Packages?
(y or n)
y
```

```

12:23:27 Reply='y'
    InSplore was stopped
--- 2013/04/16 12:24:08 sp4lupdate starting, type=base,
dist=/mnt/cdrom/ServiceProcessor/Packages
    --- Including /mnt/cdrom/ServiceProcessor/Packages/tpdSPapi-4.1.0.GA-97.i386.rpm

    --- Including
/mnt/cdrom/ServiceProcessor/Packages/tpdSPaxgw-4.1.0.GA-97.i386.rpm
    --- Including
/mnt/cdrom/ServiceProcessor/Packages/tpdSPbase-4.1.0.GA-97.i386.rpm
    --- Including
/mnt/cdrom/ServiceProcessor/Packages/tpdSPcliClient-4.1.0.GA-97.i386.rpm
    --- Including
/mnt/cdrom/ServiceProcessor/Packages/tpdSPclmaint-4.1.0.GA-97.i386.rpm

    Software installing...

```

NOTE: The update process takes approximately five minutes.

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

```

1.1      Display SP Version

      SP Software Version

SP-4.1.0.GA-97

SP Base Image Version:      Red Hat Enterprise Linux Server release 6.1
(Santiago)
SP Version:              4.1.0.GA-97
SP Patches:
InFormOS release (3.1.2):   3.1.2.278
InFormOS patches (3.1.2):   01
More detail is available in the latest SPLOR or spconfig data.

Press <enter/return> to continue

```

At this point, the update is applied to the SP.

7. Press **ENTER** to return to the SPMAINT main menu.
8. Type 13 for **Display SP Status**, and then press **ENTER** to view the active SP process.

```

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 9 httpd server processes running

```

```
spevent is running for the following clusters:
    1400383 (383)

spcollect processes are running as follows:
    biosmsg for 1400383 (s383)
    config  for 1400383 (s383)
    eeeprom for 1400383 (s383)
    environ for 1400383 (s383)
    evtlog  for 1400383 (s383)
    perform for 1400383 (s383)
    status  for 1400383 (s383)

SSAgent run status -
    agent is running
```

9. Compare the SP status output with the previously saved status from [Step 6](#) to verify that the same processes are running.
10. Press **ENTER** to return to the **SP Control** menu.
11. Type **x** to return to the SPMAINT main menu.
12. Verify communication between the SP and the storage system. For more information, see ["Verifying Communication Between the SP and the Storage System" \(page 8\)](#).
13. Remove the DVD from the SP media drive and store it in the storage system cabinet.
14. Run a health check. For more information, see ["Verifying the Health of the System" \(page 14\)](#).
15. Exit the SP.

6 Installing the SP 4.1.0 MU2 Software by Using the Secure Service Collector-6 (Selfinstall Package)

NOTE: If the SP is using Secure Network Mode (SNM), the Secure Service Collector will change when this upgrade is performed. Before you perform the upgrade, make sure that your firewall settings and/or proxy settings are updated to allow outbound connections from the Service Processor to the new servers over port 443 (https).

The SP 4.1.0 MU2 software release can be applied to the SP from the Secure Service Collector-6 by using a `selfinstall` package.

The procedure that is described in this section is only for internal use and is to be performed by HP support personnel. HP recommends that partners use the media upgrade method that is described in [“Installing the SP 4.1.0 MU2 Software by Using Physical Media” \(page 9\)](#).

△ **CAUTION:** Once the software is deployed from the Secure Service Collector-6 server, the SP maintenance update is installed and the SP is upgraded automatically. It is not possible to revert to a previous version of the SP after the package is deployed.

CAUTION: Do NOT use a collector server SSH remote session to connect to the SP to perform an upgrade. The connection resets during the upgrade and may result in failure. The SP may require a rebuild of the software when an upgrade failure occurs.

CAUTION: Do NOT attempt to deploy a package to an MP device while simultaneously logged into SPMAINT.

1. Establish a connection to the Secure Service Collector-6, and then log on.
2. Locate and then click the **Software** tab in the upper-right corner.
3. Click **Deploy packages to assets over the internet**.
4. Select the SP-4.1.0.GA-97 package, and then click **Next**.
5. In the **Available Assets** table, select the device to which to download the package, and then click **Add Checked**.
6. Click **Next**.
7. Select the **Schedule package for immediate deployment** option, and then click **Next**.
8. If you want to be alerted to events as the package deploys, select the appropriate notification options, enter your contact information, and then click **Next**.
9. Review the confirmation information, and then click **Deploy**.
10. Use the Package Deployment Manager to check the status of the deployment. To refresh the page, press **F5**.
11. After you verify that the deployment is complete, exit the session and log off the server. The `selfinstall` package will automatically apply itself to the SP and install the patch.
12. Wait for the upgrade process to finish. This will take approximately 20 minutes.
13. Connect to the SP and verify the SP software version and verify that the processes are active. For more information, see [“Verifying the Service Processor Software, Base Image Version, and Processes” \(page 7\)](#).
14. Verify communication between the SP and the storage system. For more information, see [“Verifying Communication Between the SP and the Storage System” \(page 8\)](#).
15. Verify the health of the system as described in [“Verifying the Health of the System” \(page 14\)](#).

7 Installing the SP 4.1.0 MU2 Software by Using SPOCC

The SP 4.1.0 MU2 software release can be applied to the SP by using Service Processor Onsite Customer Care (SPOCC).

⚠ CAUTION: Customer use of the SPOCC Update utility to upgrade HP 3PAR Service Processor and Operating System software is not supported. Contact HP Support for software upgrade assistance.

1. In the left navigation pane of SPOCC, click **Update**.
2. Under **Service Processor and HP 3PAR OS Update**, click **Update Service Processor**.
3. On the **Update - Update Service Processor** screen, you can find information to verify that all the prerequisite requirements for the update have been met. To do this, click **Prerequisites**. Use the HP Support Center website link to search for the release notes that pertain to your version of the SP software, and then click **Return** to return to the **Update - Update Service Processor** screen.
4. Under **Update - Update Service Processor**, click **Load Update**.
5. Under **Update - Update Service Processor - Load Update**, click to select one of the following check boxes, as appropriate for the location of the installation files:
 - **ISO Image:** Click to select this option if the SP update is stored on an ISO, and then browse to or enter the location of the ISO.
 - **SP DVD drive:** Click to select this option if the SP update is stored on the DVD drive of the SP.
 - **Location Path:** (This option is only for internal use by HP support personnel.) Click to select this option if the SP update is stored on a network location, and then enter the path name of the location.
6. Click **Load**. If you are prompted to continue with the loading of the software, click **Continue**.
7. Under **Update - Update Service Processor — Install SP Update**, a message appears that the update has successfully loaded. Click **Yes** to continue the installation.
8. Under **Update - Update Service Processor — Install SP Update**, a message appears showing the SP version that will be installed. Click **Install**.

NOTE: When multiple versions of the SP software reside on the SP, there is a pull-down menu from which you can select the correct version.

9. When the update completes, an **SP Update Successful** message appears on the SPOCC home page.

8 Verifying the Health of the System

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

Running a Health Check from SPMAINT

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 status data for InServ <System_Name>?
(y or n)
```

3. Type **y**, and then press **ENTER**. 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 InServ

        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:

- Use the `more` command to view files. Press the space bar 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 and must be rerun to be seen again.

5. Log out of the SP.

Running a Health Check from SPOCC

1. Launch a web browser and connect to `https://<IP address of the SP>`.
2. After you are logged in to SPOCC, click **Support** in the left navigation pane.
3. Click **Health Check**.
4. View the report and correct any noted problems.
5. Log out, and then close the web browser window.

9 Support and Other Resources

Contacting HP

For worldwide technical support information, see the HP support website:

<http://www.hp.com/support>

Before contacting HP, collect the following information:

- Product model names and numbers
- Technical support registration number or Service Agreement ID (if applicable)
- Product serial numbers
- Error messages
- Operating system type and revision level
- Detailed questions

Specify the type of support you are requesting:

HP 3PAR storage system	Support request
HP 3PAR StoreServ 7200, 7400, and 7450 Storage systems	StoreServ 7000 Storage
HP 3PAR StoreServ 10000 Storage systems HP 3PAR T-Class storage systems HP 3PAR F-Class storage systems	3PAR or 3PAR Storage

HP 3PAR documentation

For information about:	See:
Supported hardware and software platforms	The Single Point of Connectivity Knowledge for HP Storage Products (SPOCK) website: http://www.hp.com/storage/spock
Locating HP 3PAR documents	The HP 3PAR StoreServ Storage site: http://www.hp.com/go/3par To access HP 3PAR documents, click the Support link for your product.
HP 3PAR storage system software	
Storage concepts and terminology	<i>HP 3PAR StoreServ Storage Concepts Guide</i>
Using the HP 3PAR Management Console (GUI) to configure and administer HP 3PAR storage systems	<i>HP 3PAR Management Console User's Guide</i>
Using the HP 3PAR CLI to configure and administer storage systems	<i>HP 3PAR Command Line Interface Administrator's Manual</i>
CLI commands	<i>HP 3PAR Command Line Interface Reference</i>
Analyzing system performance	<i>HP 3PAR System Reporter Software User's Guide</i>
Installing and maintaining the Host Explorer agent in order to manage host configuration and connectivity information	<i>HP 3PAR Host Explorer User's Guide</i>
Creating applications compliant with the Common Information Model (CIM) to manage HP 3PAR storage systems	<i>HP 3PAR CIM API Programming Reference</i>

For information about:	See:
Migrating data from one HP 3PAR storage system to another	<i>HP 3PAR-to-3PAR Storage Peer Motion Guide</i>
Configuring the Secure Service Custodian server in order to monitor and control HP 3PAR storage systems	<i>HP 3PAR Secure Service Custodian Configuration Utility Reference</i>
Using the CLI to configure and manage HP 3PAR Remote Copy	<i>HP 3PAR Remote Copy Software User's Guide</i>
Updating HP 3PAR operating systems	<i>HP 3PAR Upgrade Pre-Planning Guide</i>
Identifying storage system components, troubleshooting information, and detailed alert information	<i>HP 3PAR F-Class, T-Class, and StoreServ 10000 Storage Troubleshooting Guide</i>
Installing, configuring, and maintaining the HP 3PAR Policy Server	<i>HP 3PAR Policy Server Installation and Setup Guide</i> <i>HP 3PAR Policy Server Administration Guide</i>

For information about:	See:
Planning for HP 3PAR storage system setup Hardware specifications, installation considerations, power requirements, networking options, and cabling information for HP 3PAR storage systems	
HP 3PAR 7200, 7400, and 7450 storage systems	<i>HP 3PAR StoreServ 7000 Storage Site Planning Manual</i> <i>HP 3PAR StoreServ 7450 Storage Site Planning Manual</i>
HP 3PAR 10000 storage systems	<i>HP 3PAR StoreServ 10000 Storage Physical Planning Manual</i> <i>HP 3PAR StoreServ 10000 Storage Third-Party Rack Physical Planning Manual</i>
Installing and maintaining HP 3PAR 7200, 7400, and 7450 storage systems	
Installing 7200, 7400, and 7450 storage systems and initializing the Service Processor	<i>HP 3PAR StoreServ 7000 Storage Installation Guide</i> <i>HP 3PAR StoreServ 7450 Storage Installation Guide</i> <i>HP 3PAR StoreServ 7000 Storage SmartStart Software User's Guide</i>
Maintaining, servicing, and upgrading 7200, 7400, and 7450 storage systems	<i>HP 3PAR StoreServ 7000 Storage Service Guide</i> <i>HP 3PAR StoreServ 7450 Storage Service Guide</i>
Troubleshooting 7200, 7400, and 7450 storage systems	<i>HP 3PAR StoreServ 7000 Storage Troubleshooting Guide</i> <i>HP 3PAR StoreServ 7450 Storage Troubleshooting Guide</i>
Maintaining the Service Processor	<i>HP 3PAR Service Processor Software User Guide</i> <i>HP 3PAR Service Processor Onsite Customer Care (SPOCC) User's Guide</i>
HP 3PAR host application solutions	
Backing up Oracle databases and using backups for disaster recovery	<i>HP 3PAR Recovery Manager Software for Oracle User's Guide</i>
Backing up Exchange databases and using backups for disaster recovery	<i>HP 3PAR Recovery Manager Software for Microsoft Exchange 2007 and 2010 User's Guide</i>
Backing up SQL databases and using backups for disaster recovery	<i>HP 3PAR Recovery Manager Software for Microsoft SQL Server User's Guide</i>
Backing up VMware databases and using backups for disaster recovery	<i>HP 3PAR Management Plug-in and Recovery Manager Software for VMware vSphere User's Guide</i>
Installing and using the HP 3PAR VSS (Volume Shadow Copy Service) Provider software for Microsoft Windows	<i>HP 3PAR VSS Provider Software for Microsoft Windows User's Guide</i>
Best practices for setting up the Storage Replication Adapter for VMware vCenter	<i>HP 3PAR Storage Replication Adapter for VMware vCenter Site Recovery Manager Implementation Guide</i>
Troubleshooting the Storage Replication Adapter for VMware vCenter Site Recovery Manager	<i>HP 3PAR Storage Replication Adapter for VMware vCenter Site Recovery Manager Troubleshooting Guide</i>
Installing and using vSphere Storage APIs for Array Integration (VAAI) plug-in software for VMware vSphere	<i>HP 3PAR VAAI Plug-in Software for VMware vSphere User's Guide</i>

Servicing HP 3PAR storage systems

For information about:	See:
Maintaining the HP 3PAR Service Processor	

Initializing and using the Service Processor	<i>HP 3PAR Service Processor Software User Guide: Service Edition</i>
Upgrading the Service Processor	<i>HP 3PAR Service Processor Software Upgrade Instructions: Service Edition</i>
Troubleshooting the Service Processor	<i>HP 3PAR Service Processor Troubleshooting Guide: Service Edition</i>
Remotely servicing all storage systems	
Remotely servicing HP 3PAR storage systems	<i>HP 3PAR Secure Service Collector Remote Operations Guide</i>
Servicing 7200 and 7400 storage systems	
Maintaining, servicing, and upgrading 7200 and 7400 storage systems	<i>HP 3PAR StoreServ 7000 Storage Service Guide: Service Edition</i>
Troubleshooting 7200 and 7400 storage systems	<i>HP 3PAR StoreServ 7000 Storage Troubleshooting Guide: Service Edition</i>
Servicing 10000 storage systems	
Using the Installation Checklist	<i>HP 3PAR StoreServ 10000 Storage Installation Checklist (for HP 3PAR Cabinets): Service Edition</i>
Upgrading 10000 storage systems	<i>HP 3PAR StoreServ 10000 Storage Upgrade Guide: Service Edition</i>
Maintaining 10000 storage systems	<i>HP 3PAR StoreServ 10000 Storage Maintenance Manual: Service Edition</i>
Installing and uninstalling 10000 storage systems	<i>HP 3PAR StoreServ 10000 Storage Installation and Deinstallation Guide: Service Edition</i>
Servicing T-Class storage systems	
Using the Installation Checklist	<i>HP 3PAR T-Class Storage System Installation Checklist (for HP 3PAR Cabinets): Service Edition</i>
Upgrading T-Class storage systems	<i>HP 3PAR T-Class Storage System Upgrade Guide: Service Edition</i>
Maintaining T-Class storage systems	<i>HP 3PAR T-Class Storage System Maintenance Manual: Service Edition</i>
Installing and uninstalling the T-Class storage system	<i>HP 3PAR T-Class Installation and Deinstallation Guide: Service Edition</i>
Servicing F-Class storage systems	
Using the Installation Checklist	<i>HP 3PAR F-Class Storage System Installation Checklist (for HP 3PAR Cabinets): Service Edition</i>
Upgrading F-Class storage systems	<i>HP 3PAR F-Class Storage System Upgrades Guide: Service Edition</i>
Maintaining F-Class storage systems	<i>HP 3PAR F-Class Storage System Maintenance Manual: Service Edition</i>
Installing and uninstalling the F-Class storage system	<i>HP 3PAR F-Class Storage System Installation and Deinstallation Guide: Service Edition</i>

Typographic conventions

Table 1 Document conventions

Convention	Element
Bold text	<ul style="list-style-type: none">• Keys that you press• Text you typed into a GUI element, such as a text box• GUI elements that you click or select, such as menu items, buttons, and so on
Monospace text	<ul style="list-style-type: none">• File and directory names• System output• Code• Commands, their arguments, and argument values
<Monospace text in angle brackets>	<ul style="list-style-type: none">• Code variables• Command variables
Bold monospace text	<ul style="list-style-type: none">• Commands you enter into a command line interface• System output emphasized for scannability

⚠ WARNING! Indicates that failure to follow directions could result in bodily harm or death, or in irreversible damage to data or to the operating system.

⚠ CAUTION: Indicates that failure to follow directions could result in damage to equipment or data.

NOTE: Provides additional information.

Required

Indicates that a procedure must be followed as directed in order to achieve a functional and supported implementation based on testing at HP.

HP 3PAR branding information

- The server previously referred to as the "InServ" is now referred to as the "HP 3PAR StoreServ Storage system."
- The operating system previously referred to as the "InForm OS" is now referred to as the "HP 3PAR OS."
- The user interface previously referred to as the "InForm Management Console (IMC)" is now referred to as the "HP 3PAR Management Console."
- All products previously referred to as "3PAR" products are now referred to as "HP 3PAR" products.

10 Documentation feedback

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