Hewlett Packard Enterprise

HPE 3PAR OS 3.3.1 Downgrade Instructions

Abstract

These instructions explain how to complete a field downgrade from HPE 3PAR OS 3.3.1.x to 3PAR OS 3.2.2.x

Documentation

For the latest version of this document, go to the Services Access Workbench at **http://sawpro.atlanta.hp.com/km/saw/search.do**.

Contents

Introduction

The purpose of this document is to provide downgrade instructions to complete a field downgrade from HPE 3PAR OS 3.3.1.x to HPE 3PAR OS 3.2.2.x. These instructions must be used only at the time of the storage system installation and are not intended for use if the storage system is already in use by the customer. To obtain a copy of this documentation and additional software update and platform support information, go to the Services Access Workbench to find the latest version of the *HPE 3PAR OS Configuration Matrix*.

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

Assumptions

The system is at 3PAR OS 3.3.1 code on both node disk partitions. Log in to SP-5.0. From the main menu, click the **Systems** page. From the **Actions** menu, select **Start CLI session** and issue the following commands:

- `showversion -b`
- `showversion -r -b`

Verify that both the commands show the same 3.3.1 code.

NOTE:

After the downgrade, the service processor (SP) code level must be changed to a level supported by 3PAR OS 3.2.2. See the *HPE 3PAR Service Processor Support Matrix* available at Single Point of Connectivity Knowledge (SPOCK) website at **http://www.hpe.com/storage/spock**. Select **3PAR** under the **Other Hardware** menu. Locate **Other HPE 3PAR Support Matrices**. The *HPE 3PAR Service Processor Support Matrix* is located under this menu.

For downgrading HPE 3PAR OS 3.3.1.x to HPE 3PAR OS 3.2.2.x, the Service Processor (SP) must be at SP-5.0.0.0-22913 or later.

Verification and Preparation

Procedure

1. Verify that the hardware is compatible with 3PAR OS 3.2.2.x. If the hardware is not compatible, the downgrade procedure cannot continue.

   > **NOTE:**
   >
   > HPE 3PAR StoreServ 9000 and 20000_R2 systems cannot be downgraded from HPE 3PAR OS version 3.3.1.EGA or later to earlier versions.

2. Run Out of the Box (OOTB) following the normal procedures.
3. If storage system is not added to the SP, then to add the storage system to the SP.

   a. Connect to 3PAR Service console with `https://<sp_ip_address>:8443` on a supported browser.

      > **NOTE:**
      >
      > The following browsers are supported:
      >
      > - Microsoft Internet Explorer
      > - Microsoft Windows Edge
      > - Mozilla Firefox
      > - Google Chrome
      >
      > To access the most current browser version information, see the *HPE 3PAR Service Processor Software 5.0 Release Notes* available at Single Point of Connectivity Knowledge for Hewlett Packard Enterprise Storage Products website: **https://h20272.www2.hpe.com/SPOCK/**.

   b. Enter the user name and password, and then click **Login**.
   c. Select **Add an initialized StoreServ** to add the storage system.
   d. Follow the instructions on the dialog that opens.

4. Start a CLI session.

   a. From the main menu, select **Systems**.
   b. On the **Actions** menu, select **Start CLI session**.
   c. Follow the instructions on the dialog that opens.

5. To verify that all disks are in a normal state, enter the following command: `showpd –state`.
6. Enter the following command: `showpd`. Note of the number of Physical Disks (PDs) in the system.
7. To check PDs status and firmware level, enter the following command:

```
showpd -showcols Id,CagePos,Node_WWN,Manuf,FW_Rev,Serial,FW_Status

cli% showpd -showcols Id,CagePos,Node_WWN,Manuf,FW_Rev,Serial,FW_Status

0 0:0:0 5000CCA0165D04CF HITACHI 3P00 KMHN4VXF current
1 0:1:0 5000CCA0165CD48B HITACHI 3P00 KMHN1N8F current
2 1:0:0 5000CCA016579EC3 HITACHI 3P00 KMHK5UNF current
3 1:1:0 5000CCA0165A6023 HITACHI 3P00 KMHLPTXF current
4 3:0:0 5000CCA0165856F3 HITACHI 3P00 KMHKL2XF current
5 3:1:0 5000CCA02231D803 HITACHI 3P00 KMVWDT7F current
6 4:0:0 5000CCA0165D60A3 HITACHI 3P00 KMHNAZHF current
7 4:1:0 5000CCA02231CFBF HITACHI 3P00 KMVWD75F current
8 5:0:0 5000CCA0165D31DB HITACHI 3P00 KMHN7VXF current
9 5:1:0 5000CCA0165B329B HITACHI 3P00 KMHM4UEF current
10 6:0:0 5000CCA0165D79B7 HITACHI 3P00 KMHNDN8F current
```

```
11 6:1:0 5000CCA0165D63A3 HITACHI 3P00 KMHNB5PF current
12 7:0:0 5000CCA0165D606B HITACHI 3P00 KMHNAZ1F current
13 7:1:0 5000CCA0165D609F HITACHI 3P00 KMHNAZGF current
14 2:0:0 5000CCA02231D0C3 HITACHI 3P00 KMVWD98F current
15 2:1:0 5000CCA0165D3A7F HITACHI 3P00 KMHN8ESF current
```

8. To check cage status and firmware, enter the following command: `showcage -d`.

9. To close the CLI session web page, in top right hand corner, click **X** .

10. Verify the health of the storage system.

   a. From the main menu, select **Systems**.

   b. From the **Actions** menu, select **Check health**.

   c. Follow the instructions on the dialog that opens.

NOTE:

StoreServ is not connected to hosts, that no data is present, and any other configuration exists.

Transfer the 3PAR OS Downgrade Files to the SP

There are two options to transfer the 3PAR OS downgrade file:

- A media or ISO
- Deploy package from Axeda 6.8

Deploy the HPE 3PAR OS to the SP via Secure Service Architecture

> **NOTE:**
> - The following procedure is only for internal use and must be performed by an authorized administrator.
> - If you choose to use ISO or DVD option, you can skip this section.

> ⚠ **CAUTION:**
>
> Do not use a collector server SSH remote session to connect to the SP to perform an update. The connection resets during the update and update fails. The SP might require a rebuild of the software when an update fails.

Procedure

1. Connect to Secure Service Architecture and log on: **https://remote3par.houston.hp.com**.
2. In the upper center of the page, select the **CONTENT** tab.
3. Click the **Deploy packages to devices over the Internet** option.
4. Search and select HP 3PAR OS 3.2.2 package to deploy and then click **Next**.
5. In the **Select Assets** table, select the asset to which you want to download the package, and then select **Add Checked**.
6. Select the **Schedule package for immediate deployment** option and then click **Next** .

   > **NOTE:**
   >
   > Select the **Schedule for later deployment** option only when specified by the customer. Ensure that a proper date and time values are specified.

7. To receive alerts while the package is being deployed, select the appropriate notification options, enter your contact information and then click **Next**.
8. Review the notification information and then click **Deploy**.
9. Use the **Package Deployment Manager** to check the status of the patch deployment by returning to **Content**, then selecting **View packages that are deployed or in progress**. Use F5 to refresh the page.

   > **NOTE:**
   >
   > It can take several hours to deliver the package from Secure Service Architecture to the SP.

10. Verify package deployment is complete, exit the session, and then log off the server.

    > **NOTE:**
    >
    > Advise the customer when deployment is complete.

11. Proceed to **Perform the Downgrade**.

Perform the Downgrade

With SP-5.0 connected to the StoreServ, follow these steps to downgrade from HPE 3PAR OS 3.3.1 to the latest HPE 3PAR OS 3.2.2.

Procedure

1. Open the 3PAR Service Console main menu, and select Systems. The list of all the storage systems available is displayed.

   NOTE:

   As of now, only one available system is displayed in this list.

2. Select the storage system you want to upgrade. It provides the overview of the storage system selected.
3. Click **Actions**, and then select **Update HPE 3PAR OS**. The **Select Update** window appears.
4. Select the update package from the **Available update package(s)** drop-down menu. If the latest HPE 3PAR OS 3.2.2 package is not available in the drop-down menu, select **Load a different update package**.

   - **ISO image**—By default, this option is selected, it enables you to browse to a local ISO image file.
   - **Service Processor DVD drive**—This option enables you to import the update from the SP's physical media drive.
   - **Remote path**—(Hewlett Packard Enterprise authorized users only) This option enables Hewlett Packard Enterprise authorized users to specify the location path of a directory that contains the software RPMs. Click **Start** upload.

   NOTE:

   If you select the ISO image, Service Processor DVD drive, or Remote path option, after the load operation; the OS software package is displayed as the default in **Available update package(s)**.

5. In the **Select Update** window, the **Offline Update** method and **Admit hardware on completion** are selected by default.
6. Choose **Run Checks**, then select **Update** after all the checks pass.
7. Read and acknowledge the disclaimer by checking the box and type **OFFLINE** to acknowledge it is an offline update. The default and only method for downgrade is an offline update.

   NOTE:

   Performing an offline update requires all hosts connected to the StoreServ be shutdown before the update is installed. Host connectivity to the StoreServ will be lost during the update process, possibly causing application failures.

8. Select **Yes, Update** to start the downgrade.
9. The **Customer Self Update Agreement** page appears with links to the current HPE 3PAR OS release notes, and the Support Center. Review the recommended documentation and best practices information. After reviewing the information, click **Agree**.
10. After the downgrade is successfully completed, remove the StoreServ from SP-5.0.

    a. On **Systems**, from the **Actions** menu, select **Remove system**.
    b. Follow the instructions on the dialog box.

NOTE:

SP-5.0 skips both Run post-update checks and Admit hardware. Install supported SP 4.4 and complete the Run post-update check and Admit hardware.

11. Install the supported SP 4.4. To add the storage system to the SP, On SPMAINT, enter: `=3.2`, and then press Enter. Follow the instructions from the SP.

NOTE:

See the *HPE 3PAR Service Processor Support Matrix* available at Single Point of Connectivity Knowledge (SPOCK) website at **http://www.hpe.com/storage/spock**. Under the **Other Hardware** menu, select **3PAR**. The HPE *3PAR Service Processor Support Matrix* is located under the **Other HPE 3PAR Support Matrices** menu.

Post-downgrade Verification

Verify that system is back to the latest 3.2.2

From the interactive CLI menu, enter `showversion -b` and verify that the system is shown as `3.2.2`.

Run the post-update checks

From the interactive CLI menu, enter `checkupgrade -postcheck`, and then verify all the checks return `0` as shown below.

```
cli% checkupgrade -postcheck
{{Check Defrag} 0} {{Health Check} 0}
```

Remove SRDATA vv

After the offline downgrade, the `srdata` volume must be removed. To remove the `srdata` volume, execute these commands:

```
stopsr -f
```

```
removevv -f -rmsys .srdata
```

NOTE:

You must be logged in to the SP as **spdood** user to remove the `srdata` volume.

Check PDs and Cage firmware status

Procedure

1. From interactive CLI menu, enter `admithw`.
2. To verify that all PDs are `normal`, enter `showpd -i`.
3. To check the cage status and firmware, enter `showcage -d`.

Perform Check Health

Procedure

1. Verify that the system is in healthy state (`CSstatus`). From the SPMAINT main menu, enter: **=4.4** and then press **Enter**.
2. Select the storage system to receive the health check and press **Enter**.
3. Enter: **y** and then press **Enter** to continue.
4. Select the number that corresponds to the file with the `.all` extension (summary data) and press **Enter**.
5. The summary file displays any exceptions that need correction or review. Review and correct any exceptions.

Support and other resources

Websites

Website	Link
Hewlett Packard Enterprise Information Library	**www.hpe.com/info/enterprise/docs**
Hewlett Packard Enterprise Support Center	**www.hpe.com/support/hpesc**
Contact Hewlett Packard Enterprise Worldwide	**www.hpe.com/assistance**
Subscription Service/Support Alerts	**www.hpe.com/support/e-updates**
Software Depot	**www.hpe.com/support/softwaredepot**
Customer Self Repair	**www.hpe.com/support/selfrepair**
Insight Remote Support	**www.hpe.com/info/insightremotesupport/docs**
Serviceguard Solutions for HP-UX	**www.hpe.com/info/hpux-serviceguard-docs**
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**
Hewlett Packard Enterprise Storage Information Library	**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:

  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:

  www.hpe.com/support/AccessToSupportMaterials

(!) **IMPORTANT:**

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

Customer self repair

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

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

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

Remote support

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

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

Remote support and Proactive Care information

   HPE Get Connected

   www.hpe.com/services/getconnected

   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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