



Hewlett Packard
Enterprise

HPE StoreVirtual Storage Upgrade Guide

Part Number: AX696-10070
Published: March 2016
Edition: 7

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WARRANTY STATEMENT: To obtain a copy of the warranty for this product, see the warranty information website:

<http://www.hpe.com/info/storagewarranty>

Revision History

Revision 1	January 2012
First release	
Revision 2	November 2012
Updated for Release 10.0. Includes the new patch and upgrade notification feature, and information about changes required for upgrading to Release 10.0.	
Revision 3	March 2013
Updated for Release 10.5. Includes the rebranding to HP StoreVirtual Storage.	
Revision 4	September 2013
Updated for Release 11.x. Includes updates to the online upgrade feature and new memory requirements.	
Revision 5	January 2015
Updated for Release 12.0. Includes updates to the online upgrade feature and new memory requirements.	
Revision 6	August 2015
Updated for Release 12.5. Includes corrections to the "Upgrading memory" section, addition of matching NIC driver/firmware versions to upgrade planning checklist, and updates to troubleshooting content.	
Revision 7	March 2016
Updated for Release 12.6. Updated for Hewlett Packard Enterprise branding. Added troubleshooting issues.	

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1 Upgrading HPE StoreVirtual Storage

Hewlett Packard Enterprise recommends that you always upgrade to the latest versions of software for the StoreVirtual Storage including:

- Firmware
- LeftHand OS
- CMC
- StoreVirtual VSA
- CLI
- StoreVirtual DSM (Windows)
- StoreVirtual MEHM (VMware)
- Application Aware Snapshot Manager

Hewlett Packard Enterprise also recommends that you stay on active versions of software. You can identify active versions at

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

The CMC enables online upgrades for StoreVirtual Storage. Use the CMC to check for, download, and install the latest versions and patches. You can also use the latest CMC to manage storage systems, management groups, and clusters that are running earlier versions of the LeftHand OS. For example, a Version 10.5.x CMC will manage clusters of storage systems running LeftHand OS Version 10.0.

Online upgrade is only available for patches, the LeftHand OS, and the CMC. For all other components, the CMC will indicate what version you should upgrade to (based on the current LeftHand OS version or the LeftHand OS version you are upgrading to).

Upgrade planning

Review [Table 1 \(page 4\)](#) to ensure you are prepared to upgrade your storage systems and SAN.

Table 1 Upgrade planning checklist

Task	Description
Verify the software version you are currently running and the upgrade path to the new release software.	See “Supported upgrade paths” in the latest StoreVirtual Storage Release Notes to determine if there is a direct upgrade path for your storage systems, or if you have to upgrade to an interim version before upgrading to the current version.
Identify any memory upgrade requirements.	See “ Upgrading memory ” (page 5) to ensure that you have sufficient memory for new features and storage system hardware.
Verify the health of the storage systems and management groups.	Ensure that all storage systems are in a good state with no critical events. If you are using management groups, ensure that: <ul style="list-style-type: none">• You are logged in to the management groups you want to upgrade.• At least two storage systems are running managers, so you do not lose quorum. See “Managers and quorum” in the <i>HPE StoreVirtual Storage User Guide</i>.• All virtual managers in the management group are stopped. See “Stopping a virtual manager” in the <i>HPE StoreVirtual Storage User Guide</i>.

Table 1 Upgrade planning checklist (continued)

Task	Description
If you are running iSCSI load balancing, verify that a VIP is configured on each cluster.	You must have a virtual IP address configured for each cluster when using iSCSI load balancing.
Plan for volume access and the impact the upgrade will have to iSCSI sessions.	Upgrading the LeftHand OS software requires a reboot of the storage system. When upgrading the management group, it is recommended that volumes in clusters be configured for Network RAID 10 or higher. Network RAID 0 volumes should be disconnected (logged off) from the application servers. Rebooting the storage system will cause all iSCSI sessions on that storage system to be terminated and recovered to one of the remaining storage systems in the cluster. Consequently, application I/O to the volume may stop until the iSCSI session is recovered. Consider upgrading during off-peak time (if possible) to avoid application impact.
Schedule time for the upgrade.	The actual time to upgrade a storage system or a management group depends on the specific platform and configuration.
Upgrading the StoreVirtual Storage components.	See “ Completing the upgrade ” (page 8).
Keep log files and the support bundle.	Plan to save the upgrade information. After the upgrade, a window opens that allows you to export the upgrade information to a file. Also keep the Storage System Support Bundle. You will need these if you call Support.
Match driver and firmware versions when updating a NIC.	It is a best practice to match the driver and firmware versions when updating a NIC. Mixed versions of firmware and drivers may cause diminished reliability of data transfer, including dropped packets. If matching driver and firmware versions is not possible, Hewlett Packard Enterprise recommends using a driver version that is newer than the firmware version.

Upgrading memory

You may be required to upgrade memory on your storage system to support certain features.

- For memory utilization issues, see the advisory at the following link:
<http://www.hpe.com/support/P4300-P4500-Advisory-20150113>
- For memory requirements related to Space Reclamation, see the “Provisioning Storage” chapter in the *HPE StoreVirtual Storage User Guide*.

Setting upgrade preferences

To set the upgrade preferences described in [Table 2 \(page 6\)](#), click **Help**→**Preferences**→**Upgrades**.

Table 2 Upgrade preferences

Preference	Options
Download	<ul style="list-style-type: none"> • Automatic—The system automatically downloads upgrade files when they become available. • On Request—(Default) When upgrades are available, you must click Start Download from the Upgrades tab to download upgrade files.
Download Impact	<ul style="list-style-type: none"> • Maximize network performance—(Default) Reduces bandwidth used for file downloads (downloads are about 20% slower). • Maximize download speed—Uses available bandwidth for file downloads.
Upgrade Selection Mode	<ul style="list-style-type: none"> • Advanced—Lets you select which upgrade or patch to install. • Normal—(Default) Installs all upgrades and patches needed to upgrade to the latest version.
Download Directory	Use the default directory or click Browse to select a different one. If you change the directory, the system copies all files from the old directory to the new one and downloads any additional files you need.
Proxy Type	Select the proxy server: <ul style="list-style-type: none"> • HTTP Proxy • SOCKS Proxy
Proxy Host	Designate a proxy host using an IP address or domain. After you enter the host, port, and login credentials, you can verify the connection on the Upgrades tab by clicking Test FTP Connection .
Proxy Port	Designate a port on the proxy server. The commonly used ports are the following: <ul style="list-style-type: none"> • FTP—21 • SOCKS—1080, 1085 • HTTP—8080
Proxy User Name	Enter the user name for logging in to the proxy server
Proxy Password	Enter the password for logging in to the proxy server

Checking for available upgrades

1. On the CMC menu bar, click one of the following buttons, depending on the state of your HPE StoreVirtual SAN:
 - **Upgrades Available**—The Upgrades tab opens and displays a list of the available systems and management groups. You must be logged in to one or more management groups or available systems pool to see if any upgrades are available.
 - **Check for Upgrades**—The system accesses an FTP site and determines which upgrade or patch files are required. Continue with step 2.

If a message displays that there is a problem connecting to the download site, check your Internet connection and click **Check for Upgrades** again.
 - **Patches Available**—The Upgrades tab opens and displays a list of available patches. This button only displays if you previously selected the **Stay at Current Version** check box and there are patches available to install.
 - **View Notifications**—Notifications are downloaded when the CMC is opened. Notifications include release notes for firmware, driver and software patches and updates. You will see all notifications that are identified on the ftp site. As notifications become outdated, they will expire and no longer be displayed.

If your system is current, **Software Up to Date** will display instead of Upgrades Available or Check for Upgrades. However, you should review the Upgrades pane to verify whether optional patches are available for any storage systems or management groups. If there are no optional patches, no further action is required.
2. Click **Start Download**. If you have configured Automatic Download for Upgrade Preferences, the files begin downloading immediately.
3. The applicable files are downloaded to your download directory.

If you decide to stop downloading upgrade files during the download process, the next time you check for upgrades, the system will only download missing files.
4. Review list of available systems and management groups on the Upgrades pane to see if any upgrades are available.

If you are using StoreVirtual DSM for Microsoft Windows MPIO, Application Aware Snapshot Manager, or the CLI, the current versions of these components are listed. Go to [“Completing the upgrade” \(page 8\)](#). To verify or change the download directory, see [“Setting upgrade preferences” \(page 5\)](#).

Check for upgrades when Internet connectivity is unavailable

You must be running CMC Version 9.5 or later.

1. Connect your computer to the Internet outside of the firewall.
 2. Start the CMC.
 3. On the CMC menu bar, select **Tasks**→**Download All Upgrade Files**.
 4. You can start the download and close the progress window. To check the progress, open the window again by selecting **Tasks**→**Download All Upgrade Files**.
-
- NOTE:** If you must stop the download before it completes, you can continue the download by again selecting **Tasks**→**Download All Upgrade Files**. The download will continue downloading the remaining files only.
-
5. Close the CMC.
 6. Reconnect your computer to your network.
 7. Copy the downloaded files to a network share location or to portable media, or use the CMC on your computer to upgrade your storage systems. If you copy the files to a network location,

any CMC you use to do upgrades must point to that network location to see the files. To change the download directory, see [“Setting upgrade preferences” \(page 5\)](#).

8. Open the CMC and navigate to the Upgrades tab.
9. Click **Use Local Media** and navigate to the directory where you downloaded the upgrade files.

 **TIP:** If you reconnect to the network and check for upgrades within 24 hours of downloading the files, you can go directly to step 11. The CMC recognizes the upgrade information as current for up to 24 hours.

10. Click **OK**.
11. Review the Upgrades pane to see if any management groups or available systems have upgrades available. You must be logged in to the management group to see the upgrade status.
12. Click **Start Download** for individual management group or available systems.
The applicable files are downloaded to your download directory. To verify or change the download directory, see [“Setting upgrade preferences” \(page 5\)](#).

Completing the upgrade

Upgrade the StoreVirtual Storage components in the following order:

1. CMC (including the CLI)
2. Any patches or other components as indicated in the Install Action Required window
3. StoreVirtual DSM (Windows) or StoreVirtual MEM (VMware)
4. LeftHand OS
5. Remaining components as applicable (such as `_Snapshot_manager_abbreviation`; or `_SRA_storage_replication_adapter`)

 **IMPORTANT:** During the upgrade, do not make any configuration changes to the management groups in the Configuration Interface. Otherwise, the upgrade may fail.

Upgrading the CMC

The CMC can be upgraded independently of the LeftHand OS software and other StoreVirtual Storage components. Be aware that some patches may require an upgrade to the CMC before installing the patch.

Hewlett Packard Enterprise recommends that you upgrade to the latest versions of StoreVirtual Storage. However, you can use the latest CMC version or remain at an earlier CMC version and manage an earlier version of the LeftHand OS.

NOTE: Do not install the CMC on a virtual machine that is hosted on a volume in the management group being upgraded.

To upgrade the CMC using Online Upgrades on a 64-bit RHEL 6.x server, first install the following two packages from 32-bit RHEL 6.x:

- glibc
- libstdc++

After installing these packages, install the CMC.

- To use the latest CMC version, see [“Using the latest CMC version to manage an earlier LeftHand OS version” \(page 9\)](#) for additional steps after upgrading the CMC.
- To continue using an earlier CMC version, see [“Continue using an earlier CMC version to manage an earlier LeftHand OS version” \(page 9\)](#) for instructions.

1. Start the CMC. Or if it is already running, verify that you are using the instance of the CMC that you want to upgrade.
2. Select **Configuration Summary** and select the **Upgrades** tab.
3. Click **Continue** next to the CMC icon. If you are performing the upgrade offline, click **Use Local Media**. Select the network directory where you downloaded the files and continue with the upgrade.

When the CMC Upgrade window opens, a message says that the CMC will close for the upgrade. The CMC closes and the installation wizard opens.

4. Follow the instructions in the installation wizard.

When the installation is complete, the new version of the CMC opens.

Using the latest CMC version to manage an earlier LeftHand OS version

After upgrading the CMC, do the following on the Upgrades tab:

1. Select **Click here to stay at current software version**.
2. Select **Only notify me of patches available for my current version of software**.
3. Click **OK**.

After setting these options, you will only receive notifications for patches for the LeftHand OS version you are using.

Continue using an earlier CMC version to manage an earlier LeftHand OS version

To prevent a CMC upgrade and continue running an earlier version:

1. Start the CMC.
2. Open the Upgrades tab and do the following:
 - a. Select **Click here to stay at the current software version**.
 - b. Select **Only notify me of patches available for my current version of software**.
 - c. Click **OK**.

After setting these options, you will only receive notifications for patches for the LeftHand OS version you are using. You must renew this setting every 30 days.

Upgrading the CLI

1. Ensure that you have Administrator privileges before starting the upgrade.
2. Start the CMC.
3. Select **Configuration Summary** and select the **Upgrades** tab.
4. Click **Continue** next to the storage system for which the StoreVirtual LeftHand OS Command Line Interface is listed.
5. When the Upgrade window opens, the location of the downloaded CLI executable is displayed. Use Windows Explorer to navigate to the directory where the CLI executable was downloaded and then double-click the executable to start the wizard.

The installation wizard opens.
6. Follow the instructions on the installation wizard to complete the upgrade.

Upgrading the StoreVirtual DSM for Microsoft Windows MPIO

Complete the following steps to upgrade to the current StoreVirtual DSM version:

1. Start the CMC of current version.
2. Select **Configuration Summary** and then select the **Upgrades** tab.
3. Click **Continue** to proceed to the next storage system for which the StoreVirtual DSM is listed.

4. When the Upgrade window opens, the location of the downloaded StoreVirtual DSM for Microsoft Windows MPIO is displayed. Use Windows Explorer to navigate to the directory where the StoreVirtual DSM was downloaded and then double-click the executable to start the installer.
5. Follow the instructions in the installation wizard.
6. Select the option to restart the system and click **Finish**.

Upgrading the StoreVirtual MEM for VMware

See the *HPE StoreVirtual Storage Multipathing Deployment Guide* for upgrade instructions.

Upgrading the LeftHand OS

You can upgrade storage systems and Failover Managers within a management group or upgrade all the storage systems in the Available Systems pool. When upgrading a management group, the system determines how many storage systems can be upgraded simultaneously while ensuring quorum and volume availability. When upgrading storage systems in the Available Systems list, all storage systems in the list are upgraded. If you are upgrading management groups with Remote Copy associations, see “[Upgrading management groups with Remote Copy associations](#)” (page 11).

The StoreVirtual VSAs and Failover Manager are upgraded just like storage systems, with the following exceptions:

- Older versions of the StoreVirtual Failover Manager for VMware vSphere, such as Version 8.5 or 9.0, or a Version 9.5 StoreVirtual Failover Manager for Microsoft Hyper-V, are 32-bit and no longer supported, nor can they be upgraded. You should remove these older versions of the Failover Manager and install the 11.x or later version.
- StoreVirtual VSAs that run on VMware Workstation or VMware Player cannot be upgraded. You can download the updated version of the 60-day StoreVirtual VSA 2014 Laptop Demo from the StoreVirtual downloads page.

To update, download the most recent software for these versions of the Failover Manager or the StoreVirtual VSA from the StoreVirtual downloads page and run the installer on the administrator desktop.

<http://www.hpe.com/info/StoreVirtualDownloads>

1. When you see an upgrade for a management group or for available systems, click **Install** next to the item you want to upgrade.
2. If the Package Selection window opens, select the upgrade or patch you want to install, and click **OK**. The Package Selection window opens if the Upgrade Selection Mode is set to Advanced. See “[Setting upgrade preferences](#)” (page 5) for more information.

The Install Action Required window opens, with a list of software that may need to be upgraded before continuing with the LeftHand OS upgrade. The current versions were downloaded to your download directory.

3. If you are using the listed software, verify that the current versions are installed, or install the current versions.
To stop the LeftHand OS upgrade while you verify or install the listed software, click **Cancel**.
4. After verifying or installing the listed upgrades, select the check box at the bottom of the window, and click **Continue**.

The Upgrade Summary window also lists software that must be upgraded before finishing the LeftHand OS upgrade. For any software listed, the current version was downloaded to your download directory.

5. If you are using the listed software, verify that the current versions are installed or install the current versions.

6. After verifying or installing the listed upgrades, select the check box at the bottom of the window and click **Finish**.

NOTE: If you plan to add StoreVirtual 4330 FC storage systems to a Version 9.5 or 10.0 management group, upgrade the management group to Version 10.5 or later, and then want to use Fibre Channel in the management group, you must set up zoning and server access to support Fibre Channel. See the “Getting Started” chapter in the *HPE StoreVirtual Storage User Guide*.

Tracking the upgrade progress

The Upgrade Progress window opens, showing the upgrade progress for each storage system. When the upgrade is complete, the Upgrade Summary window opens and displays the results of the upgrade:

- To see information about the upgrade, click **Installation Succeeded**.
- If the upgrade failed, click **Installation Failed** for more information.
- To save the upgrade information to a file, click **Export Information**. Hewlett Packard Enterprise recommends that you use this option to save the upgrade information.

Verifying the management group version

To verify the management group version, select the management group in the CMC navigation window and select the Registration tab. The management group version is located at the top of the Registration Information section.

Consider the following:

- When upgrading to a new version, the management group version will not change to that version until all storage systems in the management group (and in the remote management group if a Remote Copy relationship exists) have been upgraded.
- When upgrading, the upgrade process validates the hardware identity of all of the storage systems in the management group. If this validation fails for any reason, the management group version will not be upgraded. For example, if a management group has a mix of platforms, some of which are unsupported by a software release, then only the supported platforms get upgraded successfully. Therefore, the management group version will not be upgraded if the unsupported platforms remain in that management group.

Upgrading management groups with Remote Copy associations

If you are upgrading management groups with Remote Copy associations, you should upgrade the remote management groups first. If you upgrade the primary group first, Remote Copy may stop working temporarily, until both the primary management group and the remote group have finished upgrading. Upgrade the primary site immediately after upgrading the remote site. See [“Verifying the management group version” \(page 11\)](#).

Cross-Version Remote Copy allows for remote copies to be supported between management groups that are running different LeftHand OS versions. For example, Remote Copy is supported between a management group running LeftHand OS Version 10.5 and a management group running LeftHand OS Version 11.5. The management group that is the destination for the remote copy must be running the later version. For example, the management group running Version 10.5 can create a remote copy to the management group running Version 11.5. See the “Compatibility/interoperability” section in the current version of the LeftHand OS release notes for specific cross-version Remote Copy compatibility.

Upgrading the StoreVirtual Application Aware Snapshot Manager

1. Ensure that you have Administrator privileges before starting the upgrade.
2. Start the CMC.

3. Select **Configuration Summary** and select the **Upgrades** tab.
4. Click **Continue** next to the storage system for which the Application Aware Snapshot Manager is listed.
5. When the Upgrade window opens, the location of the downloaded executable is displayed. Use Windows Explorer to navigate to the directory where the executable was downloaded and then double-click the executable to start the installer.
6. Follow the instructions in the installation wizard. The reminder window opens during the wizard. This reminder states that you must open the Authentication Console to configure user names and passwords for management groups for the Application Aware Snapshot Manager to work properly with other backup applications.
7. Click **Next** on the reminder window.
8. Click **Finish** to complete the wizard.

Troubleshooting

See [Table 3 \(page 12\)](#) if you encounter an error message during the upgrade process. See [Table 4 \(page 12\)](#) for troubleshooting issues.

Table 3 Error messages

Error message	Description
An error occurred while reading the upgrade configuration file. If the file was from a web connection, click Try Download Again, otherwise recreate your media image.	This message appears if the upgrade XML file is missing or corrupted after it has already been downloaded. If the upgrade XML file is corrupted, first delete it from the CMC download repository. Download the upgrade XML file again.
There was a problem connecting to the download site. Please check your Internet connection and click Check For Upgrades, or use local media by clicking Use Local Media.	The CMC cannot connect to the FTP site to check for upgrades, or FTP is connected but the <code>vsftpd</code> service is stopped. For more information, see the related customer bulletin at: http://h20564.www2.hpe.com/portal/site/hpsc/public/kb/docDisplay?docId=c04928683 .
The CMC cannot write to the downloads directory. Select a different directory in Upgrade Preferences and click Try Download Again.	This message appears when the CMC cannot write to the downloads directory. Check the permissions on the directory and try again, or select a different directory.
There is insufficient space on the drive for the upgrade packages. Free up some space or use Upgrade Preferences to change the download directory. Then click Try Download Again.	The drive where the CMC is trying to write the files has ≤ 2 GB of space left. The download stops so that the drive does not fill up.
At least one file was corrupted when downloading from the FTP site. This is usually caused by a transient network error. Either wait a few minutes or fix the network connection, and then click Try Download Again. You can also try to install the files. If the installation requires one of the missing files, a message will inform you that the installation was not successful.	A file or files was corrupted during the download. The file(s) is automatically deleted, so they can re-download. We also allow you to proceed with upgrades in the event that the bad file is not one that they need.
No Java Virtual Machine could be found, you must install a VM prior to running this program.	Before installing the CMC on a Linux server, you must set the SELinux setting on the Linux server to permissive mode.

Table 4 Troubleshooting

Issue	Solution
Windows installers may have their VeriSign certificates show up as "unverified."	When using a Windows installer for StoreVirtual products, you may see a message that the certificate could not be verified. To solve this issue, go to the following website for additional information and a solution:

Table 4 Troubleshooting *(continued)*

Issue	Solution
	<p>https://knowledge.verisign.com/support/ssl-certificates-support/index?page=content&id=AR1747&actp=search&viewlocale=en_US</p>
<p>Blank windows appear when installing the CMC on an HP-UX 11 server.</p>	<p>If blank windows appear during an installation of the CMC and you are using the HP-UX Window Manager (SXM/CDE), check the default font. If it is white, change it to black and begin the installer again.</p>
<p>The CMC install and uninstall wizards contain special characters such as question marks.</p>	<p>The following unsupported configurations may cause the CMC install and/or uninstall wizards to display special characters instead of the expected text:</p> <ul style="list-style-type: none"> • The system OS language is set to a different language than the system locale language (for example, the OS is set to Chinese and the system locale is set to Japanese). • The system locale is set to an unsupported language, such as French.
<p>During an online upgrade from 8.5 to 10.x or later, with storage systems on different subnets, I/O stops for approximately 2 minutes.</p>	<p>No data is lost, but I/O to the volume may stop long enough for applications to timeout. If a timeout occurs, the application must be restarted manually. If there is a critical application involved that cannot tolerate an interruption in service, then an upgrade requiring a double hop should be scheduled during a time when the application can be taken offline.</p>
<p>Online Upgrades attempts fail, and one or more storage systems may be in a state such that a subsequent attempt at upgrading will fail.</p>	<p>This error can display one of two similar error messages:</p> <ul style="list-style-type: none"> • Gathering the installation destination information for 'KB-VSA07' failed. The system is aborting the software install. There is already an upgrade process running on this NSM. Canceling all further installations. • Gathering the installation destination information for 'KB-VSA08' failed. The upgrade partition is currently in use. Canceling all further installations. <p>When there is more than one storage system in a problematic state, the storage systems will get reported only one at a time. For example, if you have a three-storage system cluster and two of the storage systems have their partition in use, the CMC will only report one of the two as being in a bad state. Then, on the subsequent upgrade attempt, the CMC will report the other storage system as being in a bad state.</p> <p>It is important to perform the following steps on all of the storage systems that might be affected; otherwise the next attempt will fail, putting storage systems that have just been corrected back into a bad state.</p> <p>If the system hangs for a significant amount of time (approximately 2-4 hours), you could try rebooting the system. After the reboot, the upgrade may continue.</p> <p>If you stop the upgrade, you must reboot each system in the cluster (the hung system and the systems waiting to upgrade) one at a time. Ensure that you wait enough time for the volumes to resynchronize before rebooting the next system.</p>

Table 4 Troubleshooting *(continued)*

Issue	Solution
The user name character length requirement changed in Version 10.0.	Beginning with Version 10.0, user names can be 3 to 30 characters in length. Previously, the maximum length was 40 characters. When upgrading to Version 10.0 or later, if there are any user names longer than 30 characters, you will be prompted to stop the upgrade and change the user names before continuing.
During the upgrade procedure, you may receive a warning that the CPU Utilization value exceeds 90, for example: CPU Utilization = 97.8843. Value exceeds 90.	This is an expected occurrence during an upgrade. No action is needed.
When upgrading from a version earlier than 11.0 and the configuration includes a StoreVirtual VSA, the upgrade may fail due to the requirement of activating the UUID on the StoreVirtual VSA disks.	If the upgrade fails, an error message appears and lists the steps that must be completed to activate the UUID. The message includes an “export information” button but after selecting it and saving the file, the file does not contain the instructions. The instructions are: <ol style="list-style-type: none"> 1. Power off the StoreVirtual VSA from the CMC. 2. Open the VMware vSphere Client, and log in to a vCenter server or an ESX server. 3. Ensure that the virtual machine is powered off. 4. Right-click the virtual machine and select Edit Settings. 5. Select the Options tab. 6. In the Settings column, select the General entry. 7. Select Configuration Parameters. 8. Select Add Row. 9. In the Name column, enter <code>disk.EnableUUID</code>. 10. In the Value column, enter <code>TRUE</code>. 11. Click OK, and then click Save. 12. In the VMware vSphere Client, power on the virtual machine.
After upgrading from Version 10.5 to 11.x or later, the Performance Monitor does not show any data for the management group that was created using a 10.5 CMC.	This issue is fixed, but it requires you to complete the following one-time configuration steps after completing the upgrade from 10.5 to 11.x or later. If you are upgrading from 11.0 to 11.5 or later, this issue does not occur. <ol style="list-style-type: none"> 1. Select Performance Monitor Tasks→Reset to Defaults. 2. Select Performance Monitor Tasks→Save Statistics Settings. 3. Verify the settings by observing the Performance Monitor.
When upgrading to 10.x or later, there is no warning that the upgrade does not complete when the management group contains unsupported platforms.	If a management group contains storage systems that do not support an upgrade to 10.x or later and you attempt to upgrade the management group to 10.x or later, the upgrade will not complete. Further, there will not be a warning or message that the upgrade cannot complete. To resolve this issue, you must migrate the systems that cannot be upgraded to 10.x or later out of the management group. Supported systems are the StoreVirtual P4x00 G2 and StoreVirtual 4x30.
Upgrading the CMC from Version 9.5 or earlier to Version 10.5 or later is not supported on Red Hat Enterprise Linux with 64-bit OpenJDK.	The following error message is displayed during the upgrade: Not Supported - Openjdk 64-Bit Server VM on amd64 Linux not supported.

Table 4 Troubleshooting *(continued)*

Issue	Solution
	If you are already running a CMC on RHEL with 64-bit OpenJDK, you may see other issues with the CMC. To resolve this issue, install Oracle Java Version 1.6 or later.
When installing the CMC on SUSE Linux Enterprise 12, the installation wizard opens in console mode.	SUSE Linux Enterprise Server 12 does not install Java by default, so the CMC installer opens in console mode and displays the message, “Graphical Installers are not supported by the VM. The console mode will be used instead.” There are two possible solutions to this issue: <ul style="list-style-type: none">• Continue the installation using the console mode.• Install the package <code>libXtst6-32bit-1.2.2-3.60.x86_64.rpm</code> on SUSE Linux Enterprise Server 12. The CMC installer will open in GUI mode.
After installing the CMC on SUSE Linux Enterprise 12, the CMC does not launch from the Linux console.	The system is unable to launch the CMC with the default Java that comes with the CMC. To resolve this issue: <ol style="list-style-type: none">1. Install the jdk packages from the SUSE Linux Enterprise 12 installation software.2. Verify that the Java component was installed.3. To launch the CMC shortcut, enter the following from the Linux console:<pre>SUSE:~/Desktop # ./HPE\ StoreVirtual\ Centralized\ Management \Console LAX_VM /usr/bin/java</pre>4. If you are unable to locate the CMC shortcut on the desktop, enter the following from the Linux console to locate it from the installer directory:<pre>suse12x64:/opt/HPE/StoreVirtual/UI # ./HPE\ StoreVirtual\ Centralized\ Management\ Console LAX_VM /usr/bin/java</pre>
The CMC becomes unresponsive after stopping an online upgrade using F11 .	Under certain conditions, you may stop an active upgrade process by pressing F11 . This action is only available when a discreet upgrade operation is taking an unexpectedly long period of time (approximately 5 minutes). Pressing F11 aborts the upgrade process, but it causes the CMC to be unresponsive. To resolve this issue, close and relaunch the CMC.

2 Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:
www.hpe.com/assistance
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:
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, go to either of the following:
 - Hewlett Packard Enterprise Support Center **Get connected with updates** page:
www.hpe.com/support/e-updates
 - Software Depot website:
www.hpe.com/support/softwaredepot
- To view and update your entitlements, and to link your contracts, Care Packs, 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

① **IMPORTANT:** Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

Websites

Website	Link
Hewlett Packard Enterprise Information Library	<u>www.hpe.com/info/enterprise/docs</u>
Hewlett Packard Enterprise Support Center	<u>www.hpe.com/support/hpesc</u>

Website	Link
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
Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix	www.hpe.com/storage/spock
Storage products	www.hpe.com/info/storage
Storage product manuals	www.hpe.com/support/StoreVirtualManuals
Storage Information Library	www.hpe.com/info/storage/docs
Storage white papers and analyst reports	www.hpe.com/storage/whitepapers
Storage partner and store locator	www.hpe.com/service_locator
StoreVirtual Storage downloads	www.hpe.com/info/StoreVirtualDownloads
StoreVirtual Storage compatibility	www.hpe.com/info/storevirtualcompatibility

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:

www.hpe.com/support/selfrepair

Remote support

Remote support is available with supported devices as part of your warranty, Care Pack Service, 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.

For more information and device support details, go to the following website:

www.hpe.com/info/insightremotesupport/docs

Documentation feedback

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