



Hewlett Packard
Enterprise

HPE StoreVirtual OS Version 12.7

Release Notes

Part Number: TA686-96351a
Published: September 2018
Edition: 9

Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Release Notes

Description

These release notes describe Version 12.7 software for the HPE StoreVirtual Storage product, which contains the following components:

- HPE StoreVirtual OS Software Version 12.7.00.0226
- HPE StoreVirtual Centralized Management Console Version 12.7.00.0226
- HPE StoreVirtual OS Command Line Interface (CLI) Version 12.7.0.34
- HPE StoreVirtual REST API Version 1.3
- HPE StoreVirtual VSA 2014 for VMware vSphere, StoreVirtual VSA 2014 for Microsoft Hyper-V, and StoreVirtual VSA 2014 for KVM Version 12.7.00.0226
- HPE StoreVirtual Failover Manager for VMware vSphere, StoreVirtual Failover Manager for Microsoft Hyper-V, and StoreVirtual Failover Manager for KVM software Version 12.7.00.0226
- HPE StoreVirtual Application Aware Snapshot Manager Version 13.6.0.5
- HPE StoreVirtual DSM for Microsoft Windows MPIO Version 12.6.0.56 (installs Microsoft certified DSM driver, version 13.5.0.50)
- HPE StoreVirtual Multi-Path Extension Module (MEM) for vSphere Version 12.6.0.20 and HPE StoreVirtual Multipathing Extension Module for VMware vSphere 6.7 Version 12.6.0.22
- HPE StoreVirtual Recovery Manager Version 1.6.0.128
- HPE StoreVirtual Storage Replication Adapter (SRA) 2.0 Version 12.7.0.10
- HPE StoreVirtual SNMP MIBs Version 12.7.00.0226

These release notes are current as of the published date.

Platforms supported for this release

NOTE: P4000 G2 platforms (P4900 G2, P4800 G2, P4500 G2, and P4300 G2) are not supported with Version 12.6 onwards.

- HPE StoreVirtual VSA 2014 for VMware vSphere
- HPE StoreVirtual VSA 2014 for Microsoft Hyper-V
- HPE StoreVirtual VSA 2014 for KVM
- HPE StoreVirtual FOM 2014 for VMware vSphere
- HPE StoreVirtual FOM 2014 for Microsoft Hyper-V
- HPE StoreVirtual FOM 2014 for KVM
- HPE StoreVirtual 4335
- HPE StoreVirtual 4730
- HPE StoreVirtual 4730 FC
- HPE StoreVirtual 4630

- HPE StoreVirtual 4530
- HPE StoreVirtual 4330
- HPE StoreVirtual 4330 FC
- HPE StoreVirtual 4130

Update recommendation

Hewlett Packard Enterprise recommends that all customers running an earlier version of software upgrade to Version 12.7.

As a best practice, Hewlett Packard Enterprise recommends upgrading software during times of non-peak activity to minimize any potential application impact.

Supersedes information

Version 12.7 supersedes all previous versions on StoreVirtual 4000 Storage and StoreVirtual VSA (2014).

NOTE: As of June 30, 2015, software upgrades are not supported on legacy VSA versions (P4000 VSA, LeftHand VSA, StoreVirtual VSA). See the customer notice *HP LeftHand, HP P4000 and HP StoreVirtual VSA Software - End of Life Announcement (c04301581)* for more information.

Languages

Version 12.7 software supports the following languages:

- English
- Simplified Chinese
- Japanese
- Korean
- Spanish

NOTE: The client version of the CLI is localized. The on-system CLI and the storage system Configuration Interface are not localized.

Enhancements

Version 12.7

Version 12.7 includes the following enhancements:

- Support for Windows 2016 Hypervisor has been added for StoreVirtual VSA and FOM.
- Support for the Windows 2016 initiator has been added for StoreVirtual DSM for Microsoft Windows MPIO.
- Linux Integration Service (LIS) driver has been upgraded to 4.1.3 to ensure better performance and to enhance use of Hyper-V features.
- Support for Windows Nano Server Initiator has been added for StoreVirtual VSA.
- Support for VMware 6.5 and 6.7 Hypervisor has been added for StoreVirtual VSA and FOM.

- Support for VMware ESX initiator 6.5 and 6.7 has been added for HPE StoreVirtual Multipathing Extension Module (MEM) for vSphere.
- 64-bit CMC support has been added to enhance manageability.
- Early detection and resolution of unrecoverable read errors (URE) has been added to help reduce the chance of URE.
- OpenJDK packages have been updated to address security vulnerabilities.

Fixes

- An issue with URE rates in StoreVirtual volumes was resolved by extending scrubbing activity.
- The *HPE StoreVirtual VSA Installation and Configuration Guide* has been updated with instructions for iSCSI rescanning.
- Excessive event reporting of network errors was corrected.
- Nodes that could not be removed from a cluster because of a network RAID setting, even though plenty of free space was available, can now be removed.
- Data/metadata loss on a single node/storage system due to a cache loss has been corrected.
- Security vulnerability "padding oracle attack" in OpenSSL is fixed.
- The CMC can now set SNMP access control to a single-host IP address.
- The out-of-space warning threshold for clusters was adjusted to a lower value so as to trigger earlier warnings.
- When the HPE StoreVirtual VSA installer deploys the VSA, it allows enough swap space to boot the VSA after deployment.
- Conditions that caused remote snapshots to hang in management groups with mixed versioning have been corrected.
- An issue that prevented snapshots from being created when VMware vCenter was validated through a local host has been corrected.
- The CMC installation wizard now pops up during an upgrade on Linux OSs.
- A 1 TB license key is available when the Recovery Manager Central feature set is enabled.
- NTP security vulnerabilities have been addressed.

Patches supported with StoreVirtual OS 12.7

NOTE: Although these patches are supported with StoreVirtual OS 12.7, the individual patch release notes might not specifically list 12.7 support.

- 10059-13 (Remote Copy patch)
- 10111
- 10118
- 10125
- 10126

- 10128
- 10129
- 10133
- 10138
- 10171-02
- 10173
- 10175
- 10176-02
- 10178
- 10179
- 10181
- 10183
- 10186
- 10187
- 10188
- 10191
- 10193
- 10194
- 10197
- 10192 (localization patch)
- 10198-02
- 10199-00
- 10200-00
- 10201-00

Prerequisites

The patches listed are prerequisites for upgrading to 12.7 and they are installed automatically through the Online Upgrade feature. Firmware patches are only installed if necessary for your hardware. See **Installation and upgrades** on page 16 for information about workarounds for firmware and hardware upgrades.

Table 1: Prerequisite patches for upgrading

Patch	Description
10147	Ensures that any patch or StoreVirtual OS upgrade applied after version 10.5 is successful. Only installable on 10.5 systems and required for any upgrades from 10.5.
10184	This patch updates the iLO 2 firmware to version 2.27.
10185	This patch updates the iLO 3 firmware to version 1.82.
10186	This patch updates the iLO 4 firmware to version 2.10 on HPE StoreVirtual 4x3x systems.
30528	This patch updates the Emulex 10 GbE NIC firmware to version 10.2.477.10 and driver to version 10.2.477.6. Only installable on 10.5 systems and required for any upgrades from 10.5.
45012	This patch updates the Emulex 10 GbE NIC firmware to version 10.2.477.10 and driver to version 10.2.477.6. Only installable on 11.5 systems and required for any upgrades from 11.5.
50002	This patch updates the Emulex 10 GbE NIC firmware to version 10.2.477.10 and driver to version 10.2.477.6. Only installable on 12.0 systems and required for any upgrades from 12.0.

Hewlett Packard Enterprise recommends upgrading firmware before upgrading to Version 12.7. Firmware upgrades require rebooting the storage systems. Completing required firmware upgrades first ensures that the Version 12.7 upgrade is accomplished more quickly. For firmware updates, see the HPE Single Point of Connectivity Knowledge (SPOCK), which is available at the following web address:

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

System requirements

HPE StoreVirtual Centralized Management Console (CMC)

- For the CMC complete installation, 276 MB disk space and 50 MB RAM during runtime.
- Minimum monitor resolution for the CMC is 1024 x 600.

Microsoft System Center Virtual Machine Manager (SCVMM) 2012 SP1

Integration is available on System Center Virtual Machine Manager 2012 SP1 running on Windows Server 2012. Hyper-V hosts in this configuration may run:

Windows Server 2012

NOTE: Windows Server 2012 R2 is not supported with SCVMM 2012 SP1.

HPE StoreVirtual Application Aware Snapshot Manager

- Windows
 - Windows Server 2016
 - Windows Server 2012 R2

- Windows Server 2012
- Microsoft .NET 3.5.1 or later
- VMware
 - vSphere 6.7
 - vSphere 6.5
 - vSphere 6.0
 - vSphere 5.5

HPE StoreVirtual DSM for Microsoft Windows MPIO

- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012

HPE StoreVirtual OS Command Line Interface (CLI)

- 10 MB available space
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012
- Windows 7
- Windows Vista

HPE StoreVirtual Recovery Manager

- Microsoft .NET 3.5 or later on the installer client
- SAN/iQ Version 9.5 or LeftHand OS Versions 10.x or later

HPE StoreVirtual Storage Replication Adapter (SRA)

- Microsoft .NET 3.5 or later
- SAN/iQ Version 9.5 or LeftHand OS Versions 10.x or later
- VMware® vCenter Server™ Site Recovery Manager™ version 5.5, 5.8, 6.0, 6.1, 6.5
- Site Recovery Manager running on two sites

HPE StoreVirtual VSA

- Windows Server
 - Windows Server 2016
 - Windows Server 2012 R2
- VMware vSphere

- vSphere 6.7
- vSphere 6.5
- vSphere 6.0 U2
- vSphere 6.0 UI
- vSphere 5.5
- Linux (KVM)
 - CentOS 6.6, 6.7, and 7.0
 - Red Hat Enterprise Linux 6.6, 6.7, and 7.0
 - Ubuntu 14.04
 - Hlinux 4

Upgrading the SAN

Automatic online upgrades are supported in Version 10.5 or later. See the *HPE StoreVirtual Storage Upgrade Guide* for more information.

Supported upgrade paths

Direct upgrades to Version 12.7 can be performed from the following released versions:

- Version 12.6
- Version 12.5
- Version 12.0
- Version 11.5

Upgrading a management group from 10.5 to 12.7 requires two upgrades. Upgrade to 12.5 first, and then upgrade to 12.7. Use the Online Upgrades feature to complete the upgrade.

Procedure

1. When prompted by the CMC to upgrade first to Version 12.5, select the option to upgrade to the applicable version, including applicable patches.
Wait for the upgrade to complete.
2. There are increased memory requirements for the StoreVirtual VSA in Version 11.x, as listed in the *HPE StoreVirtual Storage VSA Installation and Configuration Guide*. If you are upgrading from 11.5, ensure that you increase the memory in the StoreVirtual VSAs before upgrading to Version 12.7.
3. Select the option to upgrade to Version 12.7, including applicable patches.
Wait for the upgrade to complete.

When finished, the system will be running Version 12.7.

Compatibility/interoperability

For a complete list of supported StoreVirtual OS software releases and application software compatibility, including for the Failover Manager, Microsoft Windows Server, and VMware vSphere, see the StoreVirtual Compatibility Matrix, which is located at the following web address:

www.hpe.com/info/StoreVirtualcompatibility

HPE Insight Remote Support 7.0.8 (with Content Level Update 1) supports StoreVirtual OS 12.7.

HPE Insight Control for VMware vCenter 7.2.3 or later is required for storage management in vCenter with management groups running StoreVirtual OS 12.7.

Cross-version compatibility for Remote Copy, the CLI, and the Application Aware Snapshot Manager

Table 2: Cross-version compatibility

	OS version ¹			
	9.5	10.5	11.x	12.x
CLI				
9.5	✓			
10.5	✓	✓	✓	✓
11.x	✓	✓	✓	✓
12.x	✓	✓	✓	✓
Remote Copy²				
9.5				
10.5	✓	✓		
11.x	✓	✓	✓	✓
12.x	✓	✓	✓	✓
Application Aware Snapshot Manager				
9.5	✓			
10.5	✓	✓		
11.x	✓	✓	✓	✓
12.x	✓	✓	✓	✓

¹ See the StoreVirtual Compatibility Matrix for active StoreVirtual and LeftHand OS versions.

² When using Remote Copy with management groups running different versions of the StoreVirtual or LeftHand OS, the management group that is the destination for the remote copy must be running the later version. For example, a management group running version 10.5 can create a remote copy to a management group running 12.0. See the *HPE StoreVirtual Storage Upgrade Guide* for more information.

SRA and Site Recovery Manager compatibility

Table 3: StoreVirtual SRA and vCenter Site Recovery Manager compatibility

VMware vCenter Site Recovery Manager version	HPE StoreVirtual Storage Replication Adapter ¹			
	9.5	10.5	11.x	12.x
5.5		✓	✓	✓
5.8			✓	✓
6.0			✓	✓
6.1				✓
6.5				✓
6.7				✓

¹ If you run the HPE StoreVirtual SRA Version 11.x or 10.5 with the vSphere Site Recovery Manager 5.0, the recovery operation will not work and the Site Recovery Manager services on the recovery site will stop working. There is no way to make the recovery operation work with Site Recovery Manager 5.0; this is a known issue in Site Recovery Manager 5.0 that was fixed by VMware in Site Recovery Manager 5.0.1. You must uninstall the vSphere Site Recovery Manager and the StoreVirtual SRA on both the protected and recovery sites, and then install the Site Recovery Manager (Version 5.0.1 or Version 5.1) and the supported StoreVirtual SRA (Version 11.x or 10.5).

Mixed OS software versions in management groups

StoreVirtual Storage management groups can accommodate storage systems that are running different versions of the StoreVirtual or LeftHand OS software. However, you can only add storage systems that are running a greater software version to a management group that is running an earlier software version. Storage systems with StoreVirtual OS 12.7 can join management groups running LeftHand OS versions 12.6, 12.5, 12.0, and 11.5. Storage systems with StoreVirtual OS 12.7 cannot join management groups running LeftHand OS versions 10.5 and earlier.

If you partially upgrade a StoreVirtual Storage management group, the management group continues to run at the earliest LeftHand OS version until all storage systems in the management group are upgraded. To determine the version of your management group, see the *HPE StoreVirtual Storage Upgrade Guide*.

Using space reclamation

- Space reclamation must be enabled manually after upgrading to StoreVirtual or LeftHand OS Version 12.x.
- Ensure that your storage systems are running normally after upgrading and before enabling space reclamation. Once space reclamation is enabled, you cannot downgrade to earlier versions of the StoreVirtual or LeftHand OS.
- Space Reclamation increases the memory utilization of the StoreVirtual OS. StoreVirtual VSAs may require additional memory allocation to use space reclamation.

Information about space reclamation is available in the *HPE StoreVirtual Storage User Guide* and the *HPE StoreVirtual Storage Online Help*.

Workarounds

Configuration Interface

Remove a storage system via the Configuration Interface only under specific circumstances

The "Using the Configuration Interface" chapter in the *HPE StoreVirtual Storage User Guide* includes a procedure about how to remove a storage system from a management group. However, it is not specified in the procedure that you should only use the Configuration Interface to perform this procedure if you cannot log in to or communicate with the storage system using the CMC.

Fibre Channel

- **After rebooting a storage system, volumes do not immediately display as mounted in the CMC**

When viewing the Servers category, **Volume and Snapshots** tab, the **Active Connection** status of volumes reflected in the CMC may take approximately 10 seconds to update following the reboot of a Fibre Channel storage system.

- **Set boot from SAN using the Emulex HBA**

To use boot from SAN with the Emulex HBA, use Emulex OneCommand and set the boot LUN to 5.

- **For a Fibre Channel volume, the Performance Monitor reports 0.0 for the first volume statistics when a second volume is created and mounted on the same server**

This happens because the path of first volume gets changed when the second volume is mounted, so the Performance Monitor displays 0.0 for the older path. To solve this issue, remove the older path and add the new path of the first volume to see the correct performance values.

- **Windows Server 2012 Hyper-V cluster shows disk errors on the active node during scheduled application-managed snapshots when using Fibre Channel**

The snapshot process quiesces the volume, then takes the snapshot, then mounts the snapshot using Fibre Channel, then unmounts the snapshot. Unmounting the snapshot breaks the Fibre Channel connection, and this sometimes generates MPIO and disk errors in the Windows Event log. You can ignore these errors. The snapshot completed successfully.

HPE StoreVirtual Centralized Management Console

- **The CMC does not work properly with management groups if the configuration is changed using another user interface while the CMC is open**

When changing a management group's configuration (such as adding a node) using a user interface other than the CMC, ensure that the StoreVirtual CMC user interface is closed while making the change. Otherwise, you must either restart the CMC or find the nodes again to ensure the CMC works properly with the affected management group.

- **Incorrect volume information displayed in the CMC after storage system is brought back online**

After bringing a storage system back online after a scheduled shutdown, the CMC may display volume information for a different volume in the same management group but in a different cluster. To resolve this issue, close and re-open the CMC.

- **Active Directory user credentials fail login on a Version 11.0 node in a mixed-version management group**

This issue will occur when the management group contains nodes running Versions 10.x and 11.0. To resolve this issue, upgrade all nodes in the management group to Version 11.5 or later.

- **When a node is added to a two-node system configured with Quorum Witness, the NFS file share used for Quorum Witness is deleted without warning**

Per design, the addition of a third node eliminates the need for Quorum Witness and the Quorum Witness file share is automatically deleted. However, no warning is displayed to advise of the deletion.

- **Snapshot schedules which were paused for upgrade to 12.x did not resume after the upgrade finished**

In some circumstances, snapshot schedules may not resume after upgrading to Version 12.x and applying patches. To resolve this issue, manually resume the snapshot schedules.

- **The CMC displays an error message when changing settings in a management group or storage system**

When performing any operation that modifies settings for a storage system or a management group in the CMC, the following message may display:

```
Unable to get email settings because of CIM or management gateway issue
```

Click **OK** to close the message. The operation you are performing will complete successfully.

- **Volume and snapshot status in a management group does not change to unavailable when the evaluation period expires**

When the evaluation license period for a management group expires, you will no longer have access to volumes in the management group. However, the volume and snapshot status will still display as online. The events for license expiration have changed to Warning (at 60 days) and Critical (at 15 days) to notify you that the license is going to expire. To avoid losing access to volumes, be sure to install a permanent license before the evaluation license expires.

HPE StoreVirtual DSM for Microsoft Windows MPIO

Installing the Version 12.x StoreVirtual DSM on a Microsoft Cluster Node configured for Fibre Channel might cause the failover cluster instance to become inaccessible

Due to an issue with the Microsoft DSM, after installing the StoreVirtual DSM and rebooting the storage system as required, the Fibre Channel-configured Microsoft failover cluster cannot be discovered, opened, or managed.

To resolve this issue, uninstall the StoreVirtual DSM and rediscover the Microsoft cluster instance. In some cases, the Microsoft cluster might not be discoverable, and might have to be reconfigured.

HPE StoreVirtual Failover Manager

FOM deployment using OVF format is not successful due to space constraint in ESX 6.5 web interface. Use the VSA/FOM install wizard to deploy a FOM on ESX 6.5.

HPE StoreVirtual Application Aware Snapshot Manager

To support Transport Layer Security (TLS) Protocol Version 1.2 in your Microsoft System Center environment, follow these guidelines:

- To make TLSV1.2 compatible in a Microsoft System Center 2016 environment, follow the guidelines at the following website:

<https://support.microsoft.com/en-us/help/3156421/cumulative-update-for-windows-10-version-1511-and-windows-server-2016>

- To make TLSV1.2 compatible in a Microsoft System Center 2012 R2 environment, follow the guidelines at the following website:

<https://support.microsoft.com/en-in/help/3154520/support-for-tls-system-default-versions-included-in-the-net-framework>

HPE StoreVirtual OS Command Line Interface

- **If an invalid volume name is entered when issuing the createVolume command, the error message does not clearly explain the issue**

When this issue occurs, the error message that displays is "Unexpected Error", which does not clarify the problem. A more descriptive error message will be displayed in a future release.

- **If an invalid cluster name is entered when issuing the createCluster command, the error message does not clearly explain the issue**

When this issue occurs, the error message that displays is "Unexpected Error", which does not clarify the problem. A more descriptive error message will be displayed in a future release.

- **A disassociated Active Directory user can still execute CLI commands**

After a user is removed from an Active Directory group, the user can still successfully execute CLI commands. To resolve this issue, perform one of the following actions:

- Run the `getnsminfo` command using five different user names (either Active Directory or local). This flushes the disassociated Active Directory user name out of the cache. You must repeat this step on each node in the management group.
- Reboot the entire management group.

- **The getGroupInfo command displays incomplete data when split networking is enabled**

The `getGroupInfo` command displays information about the StoreVirtual OS network and the iSCSI network, but not the management network. For complete information, use the `getNSMInfo` command.

HPE StoreVirtual MEM for VMware

- **After removing a VSA from a cluster containing VSAs, the CMC shows a failed MEM session for a volume that is connected to an ESXi server**

To resolve this issue, perform a rescan on the ESXi server. The failed MEM session may continue to display for up to one hour in the CMC (Sessions tab) but it will eventually be removed.

- **When presenting 256 StoreVirtual volumes to ESXi hosts, some volumes do not get all data paths**

This is a VMware ESXi issue that occurs because the ESXi host is unable to set chap settings. As a result, the StoreVirtual OS fails the connection with an authorization error. The StoreVirtual MEM will display the following information in the `SMLog.log` file when this issue occurs:

```
ESXi/var/log/SMLog.log cmd is esxcli iscsi adapter target portal auth chap
set -A=vmhba37 -a=10.23.65.170:13849 --authname=__mpio_chap_name --
secret=52ce04fe8d49b344 --level=required --name=iqn.2003-10.com.lefthandnet
CHAP setup ESXCLI cmd failed retrying with LOCALCLI retryct 1
```

HPE StoreVirtual Multipathing

The Microsoft MPIO and DSM are recommended for any volumes that are accessed by ESX and Windows initiators (as might be done for VMware consolidated backup). Do not use the StoreVirtual DSM.

HPE StoreVirtual Online Help

- The Check for Updates button mentions an FTP site.

The Check for Updates button mentions an FTP site, but the FTP site has been changed to an HTTPS site.

- The "Viewing and copying alarm details" topic mentions a link that does not exist.

The hyperlinks in the Event Details window have been removed. However, the help text in "Viewing and copying alarm details" still contains a step (step 3) about clicking a link in either the Event field or Resolution field to obtain assistance with resolving the alarm. Disregard this step.

HPE StoreVirtual SRA

- **SRA tasks (test, failover, reprotect) fail if a volume name within the management group contains special characters**

If you plan to use the Storage Replication Adapter, ensure that all volume names do not contain special characters, which include:

! @ # \$ % ^ & * ()

- **Recovery fails due to management group not having enough space**

During site failover/failback, the volume is automatically converted from RAID 5 to RAID 10. If the volume does not have enough space for RAID 10, the Recovery task fails. To avoid this issue, ensure that the cluster has enough space for the conversion to RAID 10.

HPE StoreVirtual VSA

- **If using a distributed switch, StoreVirtual VSA for VMware vSphere installer displays the following error message:**

```
Unusable network encountered
```

The StoreVirtual VSA for VMware vSphere Installer does not support distributed switches and will not display a distributed switch as an option. To resolve this issue, set up a standard switch before deploying a StoreVirtual VSA for vSphere. Select the standard switch while deploying the StoreVirtual VSA for vSphere installer.

- **When using StoreVirtual VSAs, creating a management group with the wizard, and selecting Create Volume on the Create Management Group wizard, the CMC reports the following error message:**

```
Insufficient Space to Make Requested Change
```

Skip volume creation during the wizard. Create volumes after the management group and cluster are created.

- **When using HPE OneView for vCenter to deploy VSAs running StoreVirtual OS version 12.7, the ESX 6.5 selection is unavailable.**

Instead of using HPE OneView for vCenter to deploy new installations of StoreVirtual VSA 12.7 on ESX 6.5, use the StoreVirtual installer. After deployment, StoreVirtual VSA 12.7 on ESX 6.5 may be managed by HPE OneView for vCenter; only the deployment functionality is unavailable.

- **The StoreVirtual VSA for Hyper-V running with LeftHand OS 12.x on Windows Server 2012 or Windows Server 2012 R2 may go offline.**

Hewlett Packard Enterprise recommends use of the latest network interface card firmware and driver versions.

Hewlett Packard Enterprise recommends upgrading from Windows Server 2012 or Windows Server 2012 R2 to Windows Server 2016.

Hardware and platforms

- **In the HPE StoreVirtual 4730, when two drives are unavailable and the hot spare is rebuilding, the Device status is not reported properly on the RAID Setup tab in the CMC.**

The status remains at 0% `estimating`. However, you can see the updated RAID rebuilding status, with the percentage completed and estimated time remaining, on the storage system **Hardware Information** tab.

- **Failed drive status in StoreVirtual 4730 shows as:**

`Hot spare down,Off or removed`

When a drive is removed in an StoreVirtual 4730, that drive status is incorrectly reported as `Hot spare down,Off or removed`. However, the hot spare drive status is either active or rebuilding against the failed drive at that point in time. The removed drive is the only drive that is off or removed.

Installation and upgrades

- **Registering a storage system using Import License Keys fails with an incomplete error message.**

When using the Import License Key feature, if the license key file contains an incorrectly formatted license key, an error message appears stating, `The following license key file does not match the feature key of any system`. The error message does not describe the requirements for properly formatted license keys.

The license key information includes the required file name format and optional characters for tracking purposes as follows:

- Required — The file name format must contain the storage system MAC address using only uppercase alphanumeric characters (for example, `00.15.5D.D4.F5.04.dat`).
- Optional — extra file name characters may be added by the StoreVirtual administrator to help manage or track feature key usage (for example, `DatacenterB_Rack3_00.15.5D.D4.F5.04.dat`).

- **The Hewlett Packard Enterprise Support Alerts window in the installer wizard uses incorrect characters and font set for Japanese.**

This issue occurs only on the Hewlett Packard Enterprise Support Alerts page. You can use the CMC without any other font issues.

- **Uninstalling the CMC from a Linux server does not remove the HPE\StoreVirtual folder.**

The uninstallation is still successful. If needed, you can manually delete the HPE\StoreVirtual folder.

- **EVSA/EFOM installation in ESX 6.7 and 6.5 fails through TUI and GUI.**

If SSLv3 is disabled, EVSA/EFOM installation fails through the text-based interface (TUI) and graphic user interface (GUI) in ESX 6.7 and 6.5.

Workaround: Log on to the ESX server and edit the `/etc/vmware/rhttpproxy/config.xml` file by appending the following line in the `ssl` block:

```
<sslOptions>50479104</sslOptions>
```

Example:

```
<ssl>
    <doVersionCheck> false </doVersionCheck>
    _____
    _____
    <sslOptions>50479104</sslOptions>
</ssl>
```

After the change is incorporated in the `/etc/vmware/rhttpproxy/config.xml` file, restart the `/etc/init.d/rhttpproxy` service and proceed with EVSA installation.

To support Transport Layer Security (TLS) Protocol Version 1.2 in your Microsoft System Center environment, follow these guidelines:

- To make TLSV1.2 compatible in a Microsoft System Center 2016 environment, follow the guidelines at the following website:

<https://support.microsoft.com/en-us/help/3156421/cumulative-update-for-windows-10-version-1511-and-windows-server-2016>

- To make TLSV1.2 compatible in a Microsoft System Center 2012 R2 environment, follow the guidelines at the following website:

<https://support.microsoft.com/en-in/help/3154520/support-for-tls-system-default-versions-included-in-the-net-framework>

- **Host performance and connectivity may become degraded on the HPE StoreVirtual 4000 Storage when running VMware ESXi 5.5 update 2 or later.**

Hosts connected to HPE StoreVirtual 4000 Storage systems may experience degraded performance and connectivity issues when running VMware ESXi 5.5 Update 2 or later with the ATS Heartbeat feature enabled. VMware ESXi 5.5 Update 2 introduced the ATS Heartbeat, a new method for managing the heartbeat process. This feature is not compatible with HPE StoreVirtual Storage systems.

⚠ CAUTION: CAUTION: In certain configurations, use of the ATS Heartbeat can lead to data corruption on HPE StoreVirtual Storage systems.

Disable the ATS Heartbeat feature on all hosts connected to HPE StoreVirtual 4000 and HPE StoreVirtual 3000 Storage systems.

See the following VMware Knowledge Base article for instructions:

<https://kb.vmware.com/kb/2113956>

NOTE:

One or more of the links above will take you outside the Hewlett Packard Enterprise website. HPE does not control and is not responsible for information outside of the HPE website.

Networking

- **If you create a bonded interface on the primary site while Remote Copy is occurring, the routing information for the bond will be deleted.**

After creating the bond, enter the routing information and Remote Copy will work successfully.

- **The CMC allows a storage system or VSA to be added when the StoreVirtual OS network interface of the CMC is on a different subnet than StoreVirtual OS network interface of the management group.**

Before adding a node to a management group, ensure that the traffic type of its network interface is configured the same as other nodes in the management group. If this issue occurs, use the Configuration Interface to do one of the following:

- Configure the IP addresses correctly.
 - Remove the node from the management group, configure the IP addresses of the node correctly, and then add the node to the management group again.
- **When deleting the ALB bond on a storage system that has been upgraded from 9.5 to 11.5, both NIC ports become disabled.**

The ports lose the assigned IP addresses and the CMC cannot find the storage system. To resolve this issue, perform one of the following actions:

- Log in to the Configuration Interface using iLO or KVM solution (Keyboard, Video, Mouse).
 - Connect to the StoreVirtual VSA using Hyper-V Manager or vSphere Client and reassign the IP addresses to the storage system interfaces.
- **10 GB NIC status in TCP status shows failed after changing the NIC Flow Control settings.**

Do not configure the flow control or speed settings on 10 GB network interface cards. If you attempt to change the setting, the change does not take effect.

NOTE: The default flow control setting on rack mount storage systems is off. The default flow control setting on blade storage systems is on.

To recover from this situation, call Hewlett Packard Enterprise Support for assistance.

Notifications and alerts

The email alarm does not clear when a DNS server is fixed or comes back online

The following warning may display when the system attempts to send an email alert:

```
EID_GLOBAL_CONFIG_MISCONFIGURED: The 'Email' configuration status is 'Misconfigured'.
```

If DNS and the email server are unavailable briefly, the email configuration is deleted. When DNS and the email server become available again, this message displays because the email configuration no longer exists. You must reconfigure the email configuration to stop this warning message and begin receiving email alerts again.

Updating management groups with Remote Copy associations

If you are updating management groups with Remote Copy associations, update the remote management groups first. If you update the primary group first, Remote Copy may stop working temporarily, until both the

primary management group and the remote group have finished updating. Update the primary site immediately after updating the remote site.

Cross-Version Remote Copy allows for remote copies to be supported between management groups that are running different StoreVirtual or LeftHand OS versions. For example, Remote Copy is supported between a management group running LeftHand OS Version 12.0 and a management group running LeftHand OS Version 12.5. The management group that is the destination for the remote copy must be running the later version. For example, the management group running Version 12.0 can create a remote copy to the management group running Version 12.5. See “[Compatibility/interoperability](#)” for specific cross-version Remote Copy compatibility.

Snapshots

- **An application-managed snapshot cannot be taken when Symantec BackUp Exec is simultaneously running on the server where the volumes are mounted**

If this issue occurs, the CMC will indicate that a point-in-time snapshot should be taken. When Symantec BackUp Exec has completed the backup, you can successfully take an application-managed snapshot. As a best practice, ensure that application-managed snapshots are not scheduled or taken at the same time a backup is being performed.

- **When a remote snapshot schedule is first created, the Remote Snapshot Details window displays “N/A” for Completion Time and “Never” for Next Occurrence**

This issue only occurs when the schedule is created. To resolve the issue:

1. In the CMC, select the applicable volume.
2. Select the **Schedules** tab and then select the affected schedule.
3. Select **Schedule Details** and then select **Edit Schedule**.
4. No actual changes need to be made. Click **OK**.

The schedule details should now display correctly.

- **Creating an application-managed snapshot of a Fibre Channel volume generates an error**

When creating application-managed snapshots for a Fibre Channel volume, make sure to include the IQN of the server name using the CMC. Otherwise, you may receive an error message from the VSS Provider that the volume arrival is taking too long.

- **The HPE Application Aware Snapshot Manager does not support Windows Server 2008**

Support for 32-bit and 64-bit versions of Microsoft Windows Server 2008, including Windows Server 2008 R2 and Windows Server 2008 Core 2, was dropped in LeftHand OS version 12.6. See [System requirements](#).

- **Windows 2016 snapshot issue**

Snapshots connected in the iSCSI initiator are not discovered after the server manager is rescanned in Windows Server 2016.

Mount the volume using the NTFS file system on Windows 2016.

Linux upgrade issue (6.6/6.7 to 7.0)

If you attempt to upgrade the KVM host server from Linux version 6.6 or 6.7 to version 7.0, the upgrade will fail and may leave the system in an unrecoverable state. This applies to Red Hat Enterprise Linux and CentOS. Although version 7.0 is the first major Red Hat release to support in-place upgrades from a previous 6.x version and despite following the steps in the following article, upgrading to 7.0 does not work.

<https://access.redhat.com/solutions/637583>

Hewlett Packard Enterprise is investigating this issue with Red Hat. In the interim, you should not attempt to upgrade the KVM host server from version 6.6 or 6.7 to version 7.0 for either Red Hat Enterprise Linux or CentOS.

The following options are available as workarounds. Advantages and disadvantages for each option are also listed.

- Option 1: Create a new StoreVirtual VSA for KVM using Linux version 7.0 and then swap the storage with the existing StoreVirtual VSA
 - Advantage: Data availability throughout the operation without interruption.
 - Disadvantages: An additional server and a temporary license for the server are required. You will also need to work with Support to obtain new licenses.
- Option 2: Perform a chassis swap
 - Advantage: The time normally consumed for a restripe is saved. This is the preferred option.
 - Disadvantages: Data will be unavailable during the chassis swap.

Option 1: Create new StoreVirtual VSA and swap storage

Procedure

1. Install a new RHEL or CentOS 7.0 server.
2. Install the 12.6 StoreVirtual VSA for KVM on the Linux server.
3. Make sure that the size of the new StoreVirtual VSA is the same or greater than the existing StoreVirtual VSA (running on a Linux server with version 6.x).
4. Swap the StoreVirtual VSAs in the cluster:
 - a. Add the storage systems being swapped to the management group that contains the cluster.
 - b. Select the cluster in the navigation window.
 - c. Click **Cluster Tasks**, and select **Edit Cluster > Swap Storage Systems**.
 - d. To review the list of available storage systems along with the storage systems that are in the cluster, click **View Storage System Details**.
 - e. In the **Swap Cluster Storage Systems** window, for each storage system being replaced in the left column, select an available storage system from the list in the right column.
 - f. Repeat the process for each storage system to be swapped.
 - g. Click **Swap Storage Systems** when you are finished.

NOTE:

The swap operation may take some time, depending upon the number of storage systems swapped and the amount of data being restriped.

Option 2: Chassis swap

Procedure

1. Deploy a StoreVirtual VSA for KVM (called KVM VSA1 in this procedure).
2. Install the license.
3. Create a management group, cluster, and volumes with or without other nodes.
4. Power off KVM VSA1 and remove the data disks.
5. Install a new StoreVirtual VSA for KVM (called KVM VSA2 in this procedure) on the backup server running RHEL or CentOS 7.0 with a single, minimum-sized data disk.
6. Power off KVM VSA2.
7. Remove and delete the new data disk.
8. Assign the original data disks (disk of KVM VSA1) to KVM VSA2.
9. Set the IP address of KVM VSA2 to the IP address used for KVM VSA1.
10. Power on KVM VSA2.
11. Verify that KVM VSA2 rejoins the management group.

Related information

The latest StoreVirtual documentation is available at:

- HPESC:
<http://www.hpe.com/support/StoreVirtualManuals>
- Storage Information Library:
<http://www.hpe.com/info/storage/docs>

Support contacts

Telephone numbers for worldwide technical support are listed on the Hewlett Packard Enterprise Support Center:

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

Receive support alerts announcing product support communications, driver updates, software releases, firmware updates, and customer replaceable component information, in your e-mail by signing up at:

www.hpe.com/support/e-updates

To change options for support alerts you already receive, click the link to **Sign in** on the right.

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.