

# HP StorageWorks Command View EVA 9.1 release notes



**Legal and notice information**

© Copyright 2009 Hewlett-Packard Development Company, L.P.

## Description

This document describes the HP StorageWorks Command View EVA 9.1 release for array-based management and server-based management.

The information in this document is specific to the following releases of HP StorageWorks EVA management software:

- HP StorageWorks Command View EVA 9.1
- HP StorageWorks Command View EVAPerf 9.1
- Storage Management Initiative Specification for Enterprise Virtual Array (HP SMI-S EVA) 9.1
- HP Storage System Scripting Utility (SSSU) 9.1

These products are supported with the following versions of HP StorageWorks EVA controller software:

- VCS 3.1xx
- VCS 4.1xx
- XCS 6.2xx
- XCS 09000000 or later (EVA4400)
- XCS 09500000 or later (EVA4400 and EVA6400/8400)

For more information about HP EVA VCS, see the *HP StorageWorks Enterprise Virtual Array 3000/5000 release notes* for the specific version. For more information about HP EVA XCS, see the release notes for the specific array model and XCS version.

The information in this document is not provided elsewhere. HP recommends that you read this information thoroughly.

---

### ① IMPORTANT:

For supported arrays and management server hardware and software, see the *HP StorageWorks Enterprise Virtual Array compatibility reference*.

---

For the location of documents referenced in these notes, see "[Product websites and documentation](#)" on page 20.

**Update recommendation** Recommended that users upgrade to HP Command View EVA 9.1

# HP Command View EVA 9.1

This section contains information about the enhancements, fixes, licenses, compatibility and interoperability, and workarounds and limitations for HP StorageWorks Command View EVA 9.1.

## Enhancements

HP Command View EVA 9.1 includes the following enhancements:

- **Storage Essentials 6.1 support**—Support for HP Storage Essentials Performance Edition 6.1 software is added.
- **Web Based Enterprise Services (WEBES) support**—Support for WEBES 5.5 is added. WEBES 5.5 has the updated support for managing alert indications. WEBES 5.5 binaries can be downloaded and installed from the following website:

[http://h18023.www1.hp.com/support/svctools/webes/webesdownloads.html#WEBES5\\_5](http://h18023.www1.hp.com/support/svctools/webes/webesdownloads.html#WEBES5_5)

## Fixes

The following fixes have been implemented in HP Command View EVA 9.1:

- When a mirrorclone is detached, the managed capacity is reduced by the size of the mirrorclone, and the updated value now appears on the Licensing Properties page.
- The size of the SNMP trap destination string no longer causes HP Command View EVA 8.0 to terminate.
- Improved termination event handling now ensures that the last event is displayed and is saved in the termination file.
- On the DR Group Properties page, more than 32 characters can now be used for data replication group names and more than 64 characters can be used for the data replication comments.
- Virtual disk properties can now be changed if a data replication link is down.
- Accurate and complete termination logs are now produced.
- Accurate capacity reporting is now provided.
- Both controllers are no longer named "controller 1."
- With target-based management, the green LED on the management module no longer lights before the IP address is available.
- The HP Command View EVA GUI has been revised to replace incorrect references to a .exe file. The text now refers to a bundled image zip file.
- An issue with `Javawrapper.exe` depleting CPU resources has been corrected.

## Compatibility/Interoperability

### IPv6-related information

If IPv4 and IPv6 are installed on a single system, then, by default, HP Command View EVA starts on the IPv4 address. If you want to start HP Command View EVA on a specific address, then you must add the `address` entry under the `webserver` section of the `cveva.cfg` configuration file. For example, to start HP Command View EVA on IPv6, enter `address 0::0` under the `webserver` section of `cveva.cfg`.



---

**NOTE:**

IPv6 is not supported in an array-based management configuration.

---

## Installation and upgrade requirements

### Supported upgrade paths

The HP Command View EVA software suite 9.1 supports upgrades from HP Command View EVA 8.x.x and 9.0.0/9.0.1. If you are running a version earlier than 8.x.x, you must remove that version, reboot the server, and then install HP Command View EVA 9.1. Use Windows Add/Remove Programs to remove the earlier version. For complete information on upgrading to HP Command View EVA, see the *HP StorageWorks Command View EVA installation guide*.

Install HP Command View EVA 9.1 on a server running Windows. For supported Windows versions and server hardware, see the *HP StorageWorks Enterprise Virtual Array compatibility reference*.



---

**IMPORTANT:**

The InstallAnywhere application for HP Command View EVA 9.1 will not perform a cancel operation during the installation.

---



---

**NOTE:**

- Windows Add/Remove Programs may display at a larger size than the HP Command View EVA software size if other files (other installed products) are located in the directory in which HP Command View EVA is installed.
  - After uninstalling HP Command View EVA 9.1, the system should be rebooted.
- 

### Removing and installing HP Command View EVA on different drives

If you are removing HP Command View EVA from one drive and installing it on another drive, after you remove it, HP recommends that you reboot the system to clear services that may still be running.

### Online disk drive firmware upgrade using HP Command View EVA

An online disk drive firmware upgrade for HP Command View EVA 9.1 requires using a .zip file of the bundled image, which you can download from the following HP website:

<http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareIndex.jsp?lang=en&cc=us&prodNameId=3453487&prodTypeId=329290&prodSeriesId=3302267&swLang=13&taskId=135&swEnvOID=54>

For installation instructions, see the *HP StorageWorks Enterprise Virtual Array Fibre Channel hard disk drive firmware installation instructions*. To access the instructions, click the firmware bundle description link, and then click the **Installation Instructions** tab.

---

 **NOTE:**

- An online disk drive firmware upgrade is available for server-based management only.
  - Stop all storage object modification jobs (such as creation, deletion, and presentation) 30 minutes before upgrading the firmware.
- 

## Installing HP Command View EVA sequentially

When using HP Command View EVA 9.1, HP Replication Solutions Manager 5.0, and HP Command View for Tape Libraries 2.4 on the same server, follow the installation and removal procedures in this section. If previous versions of any of these products are installed, you must remove them in the order specified in this section before installing the latest versions.

---

 **NOTE:**

HP Command View for Tape Libraries 2.4 is a limited release which is available upon request. Contact your HP account support representative for more information.

---

## Installing the software sequentially

Install the software in the following sequence:

- HP Replication Solutions Manager 5.0
- HP Command View EVA 9.1
- HP Command View for Tape Libraries 2.4

---

 **NOTE:**

If HP Command View EVA for Tape Libraries 2.4 is currently installed, you must remove it before installing HP Command View EVA 9.1.

---

---

 **NOTE:**

If you do not follow this sequence, you must download and run the APUinstallTool to configure your system to ensure reinstallation of the software works correctly. Download the tool from the following HP website:

<ftp://hprc.external.hp.com/autopass/release/utilities/APUinstallTool/Latest/>

The instructions for running the tool are available on the website.

If you have difficulty accessing this website using Microsoft Internet Explorer, you may have to disable the **Folder view of FTP sites** browser option. To disable this feature:

1. Select **Tools > Internet Options**.
  2. Click the **Advanced** tab.
  3. Clear the **Folder view of FTP sites** check box.
-

To install HP Command View EVA 9.1 when HP Replications Solutions Manager 5.0 is already installed on the same server:

1. If HP Command View EVA 9.0.1 or earlier is currently installed, remove this version first. Upon removal, the server will automatically reboot.
2. Stop the HP RSM Server and HP RSM Database services before continuing with the installation of HP Command View EVA 9.1. Otherwise, HP Replication Solutions Manager may not work properly.
3. Install HP Command View EVA. The following message is displayed:

```
SMI-S coexists with HP Command View EVA, HP Replication Solutions Manager, and other products.
```

```
The installer has detected an earlier version of SMI-S.  
To continue with the SMI-S provider upgrade, refer to the product  
compatibility matrix and release notes provided along with the product.
```

```
After the system is rebooted, continue with the HP Command View EVA 9.1 installation  
to ensure successful coexistence of all the related products.
```

Note:

- The earlier version of SMI-S will be removed and the system will be rebooted during the upgrade process.
- Close all open applications before proceeding.

Choose from one of the following options:

- Select OK to continue with uninstallation of SMI-S and continue with reboot of the system.
- Select Cancel to Exit the installation.

The HP SMI-S EVA feature is upgraded with the HP Command View EVA 9.1 installation.

4. Start the HP RSM Server and HP RSM Database services after the installation.
5. If HP Replication Solutions Manager 5.0 is installed in a custom directory when HP Command View EVA 9.1 is installed or upgraded, manually copy the following SAL files from the folder <SMI-S install dir>\SMI-S\EVAProvider\lib\ to the HP Replication Solutions Manager directory.
  - SALCommon.jar
  - SALEva.jar
  - SALhprsm.jar

---

 **NOTE:**

This step applies to all Windows platforms other than Windows 2003 32-bit.

---

6. Copy the SAL files to the following HP Replication Solutions Manager folders:
  - <RSM Install Dir>\RSM\JBoss\server\default\lib
  - <RSM Install Dir>\RSM\JBoss\server\default\deploy\rsm-client.war\lib
  - <RSM Install Dir>\RSM\JBoss\server\default\deploy\rsm-client.war\signed

## Removing the software sequentially

1. Remove the software in the following order:
  - HP Replication Solutions Manager 5.0
  - HP Command View for Tape Libraries 2.4
  - HP Command View EVA 9.1
2. Reboot the server.

## Workarounds and limitations

Most of the issues described in this section have a workaround and include a resolution. Some, however, are limitations and should be noted for reference.

### Enabled host information not displayed

If HBA information is not displayed for an enabled host, install `fcinfo` on the host. You can download the `fcinfo` package from the Microsoft website:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=73d7b879-55b2-4629-8734-b0698096d3b1&displaylang=en>

### Verifying HP Command View EVA code

HP products deliver on the “trustworthy and reliable” brand promise. Creating and delivering an electronic cryptographic “signature” for HP code (such as software, firmware, drivers, applications, patches, and solutions) gives you an industry-standard method to verify the integrity and authenticity of the code you receive from HP before deployment. Digitally signed code helps you manage your security vulnerability risk from using non-HP versions of the software and firmware, which may fail to meet expectations and, may harbor malicious code (like a virus or worm).

To verify the HP Command View EVA code before installing the software, contact your HP account support representative for instructions.

### Adding the DC-Management license

When you try to add the DC-Management license, the following error message is displayed:

```
LicenseServer; nested exception is:  
com.hp.storage.common.LicenseServerException: Method Not Found. Either  
Library[DLL] or API is not found.
```

Windows 2003 SP1 systems must have Windows hotfix KB887693 installed. Windows hotfix KB887693 can be located on the following website:

<http://support.microsoft.com/kb/887693/>

Windows 2003 SP2 systems must have Windows hotfix KB951859 installed. Windows hotfix KB951859 can be located on the following website:

<http://support.microsoft.com/kb/951859/>

## Emulex HBA requires latest driver version

Servers using an Emulex HBA with Storport drivers (prior to version 5-2.00a12) may experience a system hang that requires a reboot or an Array Discovery issue in HP Command View EVA. Ensure that the version you have is 5-2.00a12 or later. To obtain the drivers, go to the following site:

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

---

### NOTE:

When using Windows 2003, the new driver (5-2.00a12) requires the Microsoft hotfix KB932755. To obtain the hotfix, go to the following Microsoft website:

<http://support.microsoft.com/KB/932755>

---

## Emulex 8 Gb HBA Windows hotfix

If the management server is running Microsoft Windows 2003 and has Emulex 8 Gb HBAs installed, HP Command View EVA 9.1 may not display any arrays. Emulex 8 Gb HBA with Windows 2003 requires the Windows hotfix KB945119 to support HP Command View EVA 9.1. To obtain the hotfix, go to the following Microsoft website:

<http://support.microsoft.com/kb/945119/>

The title of the issue on the Microsoft website follows:

*Stop error that is related to the Storport.sys driver on a Windows Server 2003-based computer:  
"0x000000D1 (parameter1, parameter2, parameter3, parameter4)  
DRIVER\_IRQL\_NOT\_LESS\_OR\_EQUAL".*

This issue occurs only if Emulex 8 Gb HBAs (HP part numbers AJ762A and AJ763A) and HP Command View EVA 9.1 are installed on the management server. If you are using the server for storage only, not as a management server, you do not need to install this hotfix.

## Virtual disk sizes displayed incorrectly

The disk group properties page displays incorrect sizes for virtual disks. To view the correct sizes, click **Create Vdisk**. When you have the correct size information, click **Cancel**.

## IP\_Filter page incorrectly displays IPv6 address

The IP\_Filter page incorrectly indicates that IPv6 addresses are accepted. Currently, only IPv4 addresses are supported.

## Unexpected behavior when using older HBA driver

Unexpected behavior may be observed if the latest supported Windows HBA driver is not installed. To ensure proper HP Command View EVA operation, use the latest supported Windows HBA driver. For information on supported Windows HBA drivers, see the following HP website:

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

## Status summary of hosts folder with an iSCSI host

The status summary of hosts folder does not work with an iSCSI host.

## Storage system connection down error message

If you attempt to create a DR group soon after initializing an array, the following error message may appear: Storage system connection down. Wait a few minutes and then try again.

## Deleting incorrectly entered licenses

If a license for an array is entered incorrectly (for example, a license is entered with the correct WWN, but with the incorrect model number), the license will appear under the Licensing tab and you will not be able to remove it using the **Remove License** option. Use the **Remove All Licenses** option to delete the license.

## Antivirus software may degrade performance

To avoid HP Command View EVA performance issues when antivirus software is installed on the same management server, HP recommends that you exclude from the antivirus software scan the log-related files that change frequently, including the following:

- \Program Files\Hewlett-Packard\Sanworks\Element Manager for StorageWorks HSV\cache
- \Program Files\Hewlett-Packard\Sanworks\Element Manager for StorageWorks HSV\log
- \Program Files\Hewlett-Packard\Sanworks\Element Manager for StorageWorks HSV\logs
- \Program Files\Hewlett-Packard\Sanworks\Element Manager for StorageWorks HSV\trace

If HP Command View EVA Perf is installed:

- \Program Files\Hewlett-Packard\EVA Performance Monitor\logs
- \Program Files\Hewlett-Packard\EVA Performance Monitor\cache

If HP SMI-S EVA is installed:

- \Program Files\Hewlett-Packard\SMI-S\CXWSCimom\logs
- \Program Files\Hewlett-Packard\SMI-S\EVAProvider\logs

## Version numbers may differ

The HP Command View EVA version may differ, depending on which window you are accessing. Sometimes the date is displayed; other times the build number is displayed. For example, the login page displays 09.00.00.090131 (date), while Add/Remove Programs displays the master installer build number (9.0.0.88) instead of the HP Command View EVA build number. Subcomponent version numbers are not available in Add/Remove Programs.

## Missing license alert for temporary license

If you have both permanent and temporary licenses for a product, the license alert may not be displayed for the temporary license. Use the Report section of the Licensing tab on the Initialized Storage System Properties page to display the expiration date for the temporary license.

## HP Command View EVA does not support array initialization over distance

When initializing an array, ensure that you are using a local instance of HP Command View EVA. The management server running HP Command View EVA should be connected to the array through a direct connection or Fibre Channel switches. Do not use an FCIP gateway between the management server and the array.

## Microsoft Windows 2008 and LUN shrink

LUN shrink using the Windows 2008 operating system is only supported on basic disks and dynamic simple volumes that are spanned or are mirrors. Striped or RAID5 dynamic disks are not supported with LUN shrink.

## DR group, host port data replication settings page help not displayed

When using server-based management to view the DR group host port data replication settings page for EVA4400 storage systems, the context-sensitive help topic is not displayed. To view the help page:

1. Open the HP Command View EVA help system.
2. Select a book of help topics for any EVA model with XCS 6.x or XCS 9.5.
3. In the help table of contents, navigate to **Page help > DR group pages > Host port data replication settings** page and open the help topic.

## Array-based management does not support SNMP alerts

When using array-based management, HP recommends events be configured as alert indications. SNMP alerts for array-based management are not currently supported.

## Failed to get Storage Cell error occurs when doing a disk drive firmware upgrade on an EVA4400

When performing a disk drive firmware upgrade on an EVA4400, a Failed to get Storage Cell error may occur. This error will only occur when using server-based management. If this error occurs, refresh the browser page and restart the disk drive firmware upgrade process.

## WEBES 5.5 not receiving events consistently

WEBES 5.5 does not receive events consistently when using multiple HP Command View EVA user name and password credentials that are entered as different Command View protocols in the WEBES Managed Entity Protocol page. WEBES 5.5 supports only one defined Command View protocol.

Make sure only one Command View protocol is defined in the WEBES Managed Entity Protocol page. Use a common set of credentials to ensure WEBES maintains communication with all arrays in the monitored environment, which ensures consistent delivery of events.

## Controller time zone reset to UTC after upgrading array-based HP Command View EVA

After updating HP Command View EVA in an array-based management configuration, the controller time zone is reset to UTC. To ensure proper event handling, set the time zone and time to the local time. The correct time can be set from HP Command View EVA by selecting **System Options > Set time options**.

## Client applications not notified when disks are grouped using the **Add disks** button

Client applications are not notified of the change when disks are grouped using the **Add disks** button on the Disk Group Properties page.

When moving disk drives across disk groups, use the **Group/Ungroup** button on the Disk Group Properties page.

# HP Command View EVAPerf 9.1

This section describes enhancements and workarounds for HP Command View EVAPerf 9.1.

## Enhancements

The following enhancements have been added to HP Command View EVAPerf 9.1:

- **New `fn` command option**—The `short` option added to the `fn` command enables faster retrieval of friendly names. When using the `short` option virtual disk properties such as Redundancy, Preferred path, and Number of presentations are not retrieved.
- **Alternate paths for gathering EVA metrics**—The HP Command View EVAPerf service has been enhanced to use any available path to the EVA to retrieve metrics. This enables the HP Command View EVAPerf service to collect metrics using other paths available to the EVA if the path currently being used fails.

## Configuring HP Command View EVAPerf

You can configure HP Command View EVAPerf parameters to customize the performance data collector service. The installation folder contains a sample configuration file. You can set the following parameters:

- `evapdcs.ScsiDiscoveryInterval`—Sets the SCSI device discovery interval, in seconds, for the EVA data collection service. The default value is 600.
- `evapdcs.PollingInterval`—Sets the polling interval, in seconds, for the EVA data collection service. The default value is 10 seconds.
- `evapdcs.SslEnabled`—Enables or disables the SSL connection. To enable SSL set the value to `True`. The default value is `False`.
- `evapdcs.RPCPort`—Sets the TCP port that the EVA data collection service will listen to for RPC requests. The default value is 860.
- `evapdcs.TraceFileAge`—Sets the maximum age of trace files, in days. The default value is 2.
- `evapdcs.EventFileAge`—Sets the maximum age of event files, in days. The default value is 2.
- `evapdcs.MaxLogSize`—Sets the maximum size for server log files, in MB. The default value is 0 MB, which indicates no specified limits.

- `evaperf.MaxLogSize`—Sets the maximum size for client log files, in MB. The default value is 0 MB, which indicates no specified limits.
- `evapdcs.LogLevel`—Sets the log level for logging server events. The default value is log level 2. Possible values are from 1–4, where 4 indicates maximum logging.
- `evaperf.LogLevel`—Sets the log level for logging client events. The default value is log level 2. Possible values are from 1–4, where 4 indicates maximum logging.

## Logging configuration file

The configuration file `logging.conf` is located in the HP Command View EVAPerf installation directory. This file contains the parameters that control the logging. The format of the file is shown in Table 1.

### NOTE:

HP recommends that you *not* use the remote logging feature for EVA performance logging. The HP Command View EVAPerf client and server should be running on the same system to gather logging for performance and state data.

**Table 1 HP Command View EVAPerf logging configuration file parameters**

| Parameter                   | Description  |
|-----------------------------|--|
| <code>state_logging</code>  | Controls the tracking and logging of state changes. If set to <code>yes</code> , the performance data logging must be enabled. Default is <code>no</code> . Specifying any value other than <code>yes</code> will turn off logging.  |
| <code>perf_logging</code>   | Controls the logging of performance metrics. Default is <code>no</code> . Specifying any value other than <code>yes</code> will turn off logging.  |
| <code>state_interval</code> | Frequency at which state data is to be polled and logged in (minutes). Default is 60.<br>Minimum value for state polling interval is 30 minutes; maximum is 24 hours.  |
| <code>perf_interval</code>  | Frequency at which performance data is to be polled and logged (in seconds). Default is 300.<br>Minimum value for polling interval is 30 seconds; maximum is 24 hours.   |
| <code>root</code>           | Directory under which state and performance data will be logged. Use / instead of \ to separate directories (for example, <code>c:/all_logs/eva_logs</code> ).<br>Default log directory is <code>performance_history</code> under the current directory. Log root directory must be present for logging; if the directory does not exist, data will not be logged. |
| <code>filesize</code>       | Maximum size of a log file in MB. Default is 50. Minimum value for log file size is 1 MB.  |
| <code>numdays</code>        | Number of days that logs need to be retained. Default is 3. Minimum number of days is 1.   |

## Configuration recommendations

HP recommends the following maximum configuration for HP Command View EVAPerf:

- A maximum of 20 concurrent connections to the HP Command View EVAPerf service, where a connection is a successful communication channel established between the client and the HP Command View EVAPerf server
- A maximum of 16 arrays
- A maximum active I/O on approximately 4,000 virtual disks in parallel across 16 arrays
- A polling interval of 60 seconds for the HP Command View EVAPerf service

## Workarounds and limitations

### Limited binary logging

The binary logging feature of Windows Performance Monitor is limited in the number of HP EVA performance objects it can log simultaneously. Logging works most reliably when you log small numbers and instances of counters. When the number of counters and instances logged is too large, nothing is saved in the binary log file.

Log each instance of an HP EVA performance object (and all counters for each instance) in a separate binary log file.

### Domain names not supported in the `hostname` parameter of the `fnh` command

If the host name you specify in the `fnh` command is a full domain name (for example, `nt12345.asiapacific.xyzcompany.net <mailto:xyz@asiapacific.xyzcompany.net>`), the friendly names host file is not created.

Use `localhost` or the host name without the domain when running the `fnh` command. Examples of supported entries follow:

```
evaperf fnh localhost hpadm@localhost
evaperf fnh nt12345 xyz@asiapacific.xyzcompany.net
```

### Windows Performance Monitor limitations

When using Windows Performance Monitor to view HP Command View EVAPerf performance data on a management server running Microsoft Windows 2003 Enterprise Edition, Windows Performance Monitor may hang when the number of counters exceeds 900 (for example, a virtual disk object when it exceeds 100 instances, with 9 counters per instance).

### `pd` and `hps` command limitation

The incorrect enclosure and bay IDs are displayed in the `evaperf pd` command when running VCS 4.100 or XCS 6.000.

- HSV100 controllers running VCS 4.100 report inconsistent enclosure and bay IDs on both controllers.
- HSV200 controllers running XCS 6.000 report the enclosure and bay ID as "-" on one of the controllers after a reboot.

## evaperf nall command fails to execute

The `evaperf nall` command fails to execute in continuous mode on a Windows 2008 server in both local mode and remote mode. Use the `evaperf all` command instead of `evaperf nall`.

## Collection of logs for a remote client is not possible

It is not possible to collect logs for a remote client. If client logs are required, ensure that the client and server are running on the same system.

## hist command limitation

When used with the object-type `state_diskgroup`, the `hist` command does not display data for the EVA4400 and the EVA6400/8400.

# HP SMI-S EVA 9.1

HP SMI-S EVA 9.1 is shipped with the HP Command View EVA 9.1 software suite. HP SMI-S EVA enables Common Information Model (CIM)-capable management software to manage EVA storage systems. HP SMI-S EVA is based on the Managed Object Format (MOF) 2.15 and is SMI-S 1.3 compliant.

---

### NOTE:

If a version of HP SMI-S EVA earlier than 8.0.x is installed, it you must remove it before installing HP SMI-S EVA 9.1.

---

## Enhancements

The following enhancements have been added to HP SMI-S EVA 9.1 for this release:

- Creation of StoragePool/DiskGroup (Enhanced) with Vraid6 capabilities is supported.
- EVA performance metrics can be collected using array-based management.
- EVA-related read-only data is provided to layered applications even when an online disk drive firmware upgrade is in progress, provided no storage object modification happens within the refresh interval time duration (30 minutes default value).
- Performance metrics data collection occurs even if one EVA controller is down.

## Compatibility/Interoperability

### Main and sub profiles supported

HP SMI-S EVA Provider 9.1 supports the following main and sub profiles:

- **Main profiles**—Array and Server
- **Sub profiles**— Software, Masking and Mapping Subprofile, Copy Services, Block Services, Disk Drive Lite, FC Target Ports, FC Initiator Ports, Job Control, Access Points, Physical Package, Multiple Computer System, and Profiles Registration

## CIM\_StorageSetting for Vraid6

Vraid6 capabilities for each StoragePool that exists on the supported array can be accessed using the instances of class `HPEVA_CannedStorageSetting:CIM_StorageSetting`.

## HP SMI-S EVA and HP Command View XP coexistence

You can install HP Command View EVA 9.1 and HP SMI-S EVA 9.1 on the same server as HP Command View XP Advanced Edition 6.1 and Advanced Edition SMI-S XP 1.3. Complete the following steps to ensure that these products work together:

1. Install HP Command View XP Advanced Edition 6.1.
2. Install HP Command View EVA 9.1 and HP SMI-S EVA 9.1.
3. Change the port number in the file `C:\Program Files\Hewlett-Packard\SMI-S\CXWSCIMOM\config\cxws.properties` to an available port other than 5988 or 5989.

The property names are `cxws.http.port` and `cxws.https.port`.

4. Restart the HP StorageWorks HP SMI-S EVA Object Manager service.
5. Install HP Command View XP and HP SMI-S XP.



### NOTE:

HP Command View EVA 9.1 can coexist with HP Performance Advisor XP 3.5.

---

## Secure Socket Layer (SSL) certificates

For information about Secure Socket Layer (SSL) certificates for HP Command View EVA, see the *HP StorageWorks Command View EVA installation guide*.

## Installation requirements

HP SMI-S EVA Provider 9.1 supports upgrading from HP SMI-S EVA 9.0 or 9.0.1.



### NOTE:

When performing a custom installation of HP SMI-S EVA Provider, ensure that there are no spaces in the install path.

---

## HP SMI-S EVA initial cache building may take longer with array-based management

If you are using HP SMI-S EVA Provider with array-based management, allow several minutes after the IP address is added to the Discoverer tool or after the HP SMI-S EVA Provider host is rebooted, to build the cache. Applications using HP SMI-S EVA do not have access to the array details until the cache building is complete. To determine the status of the cache building, use the `getarrayrefreshstatus.bat` file.

## Workarounds and limitations

### Changing the system's `hostname`

If you change a system's `hostname` after installing HP Command View EVA, the client applications cannot retrieve data. To enable the client to retrieve data, remove HP Command View EVA and then reinstall it. For instructions on removing and installing HP Command View EVA, see the *HP StorageWorks Command View EVA installation guide*.

### Creating a pool results in disk groups created with a size different from requested size

When you create a pool of disks through HP SMI-S EVA, the size of the total created disk groups is less than requested. For example, if you create a pool of 300 GB, the size of the pool when created is approximately 253 GB. When creating a pool of near-online disks with the minimum size possible, the actual size of the pool might be more than the specified size.

### Ungrouping disks from a disk group is not supported

When you use `CreateOrModifyStoragePool` to remove disks from a storage pool, a return code of 0 is received. This return code implies that the storage pool has been dissolved and the disks have been ungrouped; however, the disks remain grouped. HP recommends that you *not* remove disks from a storage pool using `CreateOrModifyStoragePool`. No other method is available to remove disks from a storage pool.

### HP StorageWorks CIM Object Manager service

In certain cases, when you stop the CIM Object Manager service, the status of the service is displayed as `Stopping` in the Services window; however, the service may not stop. To avoid this problem, do not stop the CIM Object Manager service within a minute of starting it.

Stopping and starting the CIM Object Manager service in such cases depends on which Windows operating system you are running.

#### **For Windows 2003 and Windows 2008**

To stop the CIM Object Manager service:

1. Go to the Task Manager.
2. Right-click the `JavaWrapper.exe` process.
3. Select **End Process**.

To restart the CIM Object Manager service:

1. Open the Services window.
2. Right-click **Object Manager**.
3. Select **All Tasks**.
4. Select **[Start.]**

### Names or device IDs with spaces

Do not include a space before or after the host name, view name, or device ID of `ViewProtocolController`. Otherwise, the `getInstance` and `EnumerateInstance` queries will fail.

## Client connection for EVA Provider

The EVA Provider supports up to 32 client connections. When possible, schedule the use of Provider applications so that usage does not overlap.

## HP SMI-S EVA uses best management path to discover arrays

When two instances of HP Command View EVA that manage the same array are discovered using the Discoverer tool, the passive instance of the array is not discovered. Both instances of the array (active and passive) should be listed in HP SMI-S EVA.

When an array has been managed by HP Command View EVA in IP1 and the same array has been managed passively by another instance of HP Command View EVA in IP2, and if both the IPs are discovered in HP SMI-S EVA storage abstraction layer (SAL), the array in the active management path is always discovered by SAL. SAL uses the best management path to communicate with the array.

## Operation in IPv6-enabled systems

When HP SMI-S EVA Provider is running on an IPv6 address or in a pure IPv6 environment, perform the following tasks:

1. Remove the JVM setting `-Djava.net.preferIPv4Stack=true` from `<SMIS install location>\CXWSCimom\config\CxwsCimomService.cfg` under `JAVA_OPTIONS`
2. Add `-Djava.net.preferIPv6Addresses=true` in `<SMIS install location>\CXWSCimom\config\CxwsCimomService.cfg` under `JAVA_OPTIONS`

## HP SIM data collection

When running HP SIM data collection, the following message may be displayed:

```
This system doesn't have a SMIS - CIMOM installed
```

If this message is displayed, run the `getarrayrefreshstatus.bat` file from the CIMOM local directory on the HP Command View EVA management server. Check the refresh status of the arrays and then try to run the HP SIM data collection again.

## HP SMI-S EVA loses communication with array-based management system after management module firmware is upgraded

When upgrading an array-based management module, the HP SMI-S EVA trust certificates between HP Command View EVA and HP SMI-S EVA are not maintained. The trust relationship must be re-established using the Discoverer tool after the management module has been upgraded.

## NullPointerException occurs while creating large virtual disks

When creating large virtual disks (for example, 2TB or larger), `CreateOrModifyElementFromStoragePool` may return a value of 0. However, the space allocation process for the virtual disk will be occurring normally in the background. The time required to complete the space allocation process is based on the size of virtual disk being created.

# HP Storage System Scripting Utility 9.1

## Description

This section describes HP Storage System Scripting Utility (HP SSSU) 9.1 enhancements, fixes, limitations, and other information.

## Fixes

The following fixes have been implemented in HP Storage System Scripting Utility 9.1:

An `ADD MULTISNAP` command now fails if there is a mismatch between the size of the virtual disk and the size of the container.

## Limitations and workarounds

- If you use the `CODELOAD DISK` command to upgrade firmware on multiple disk drives, an error is not displayed for disks configured with Vraid0.
- The `grep` command must be entered in lowercase; uppercase does not work.
- Executing a command with `grep` and redirecting the output in a file does not work. However, output can be captured by specifying the command with `grep` in a script file and executing it using the `FILE` command with redirection.
- On an OpenVMS IA64 host, the `CAPTURE CONFIGURATION` command fails if you have one of the following characters in the name or comment field for objects such as disk groups and virtual disks: `/`, `\`, `(`, or `)`

## Syntax error when capturing configuration of array in DR relationship

When using HP SSSU to capture the configuration of an array that is in a DR relationship, the resulting configuration file contains a syntax error that renders the file unusable when restoring the configuration.

The capture configuration incorrectly captures two properties at a time for the `SET DR_GROUP` command, as shown below:

```
SET DR_GROUP "\Data Replication\DR Group 001" LINK_DOWN_AUTOSUSPEND=DISABLE
SET DR_GROUP "\Data Replication\DR Group 001" LINK_DOWN_AUTOSUSPEND=DISABLE
FULLCOPY_AUTOSUSPEND=ENABLE
```

Attempting a restore using a file with this syntax error will fail because HP SSSU attempts to set two properties at one time.

**Resolution:** After capturing the configuration, edit the `SET DR_GROUP` command in the configuration file as follows:

```
SET DR_GROUP "\Data Replication\DR Group 001" LINK_DOWN_AUTOSUSPEND=DISABLE
SET DR_GROUP "\Data Replication\DR Group 001" FULLCOPY_AUTOSUSPEND=ENABLE
```

Editing the file before it is needed enables you to restore the configuration successfully, if necessary.

## Accessing HP Storage System Scripting Utility

The latest versions of HP Storage System Scripting Utility are available on the HP software downloads website:

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

Under Storage, click **Storage Software**, and then select **HP StorageWorks Command View EVA Software** under Storage Device Management Software. Select the appropriate version of HP Command View EVA.

## Installing HP Storage System Scripting Utility on a Windows host

For installation instructions, see the *HP StorageWorks Command View EVA installation guide*.

### VC80 runtime environment required for HP SSSU 9.1

All components of HP Storage System Scripting Utility 9.1 are included in the VC80 runtime environment, which is required for HP Storage System Scripting Utility 9.1. The VC80 runtime environments for the supported platforms can be downloaded from the following Microsoft websites:

**x86:**

<http://www.microsoft.com/downloads/details.aspx?familyid=200B2FD9-AE1A-4A14-984D-389C36F85647&displaylang=en>

**x64:**

<http://www.microsoft.com/downloads/details.aspx?familyid=EB4EBE2D-33C0-4A47-9DD4-B9A6D7BD44DA&displaylang=en>

**IA64:** <http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=526bf4a7-44e6-4a91-b328-a4594adb70e5>

### Windows 2008 versions

**x86:**

<http://www.microsoft.com/downloads/details.aspx?familyid=9B2DA534-3E03-4391-8A4D-074B9F2BC1BF&displaylang=en>

**x64:**

<http://www.microsoft.com/downloads/details.aspx?familyid=BD2A6171-E2D6-4230-B809-9A8D7548C1B6&displaylang=en>

### VC80 runtime environment required for SSSU 8.0.1 and later

VC80 runtime is required for SSSU 8.0.1 and later. This requirement applies to x86, x64, and amd64 platforms.

## Product websites and documentation

### Websites

All documentation associated with this release is available on the web. You can find the documents on the Manuals page of the HP Business Support Center website:

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

In the Storage section, click **Storage Software** and then select **HP StorageWorks Command View EVA Software** under Storage Device Management Software.

**Table 2 HP storage websites**

| Item  | HP website   |
|---|--|
| EVA3000                                       | <a href="http://www.hp.com/support/manuals">http://www.hp.com/support/manuals</a> . Select <b>Disk Storage Systems</b> under Storage, and then select <b>HP StorageWorks 3000 Enterprise Virtual Array</b> under EVA disk arrays |
| EVA4400                                       | <a href="http://www.hp.com/go/eva4400">http://www.hp.com/go/eva4400</a>  |
| EVA6400/EVA8400                               | <a href="http://www.hp.com/go/eva6484">http://www.hp.com/go/eva6484</a>  |
| EVA5000                                       | <a href="http://www.hp.com/support/manuals">http://www.hp.com/support/manuals</a> . Select <b>Disk Storage Systems</b> under Storage, and then select <b>HP StorageWorks 5000 Enterprise Virtual Array</b> under EVA Disk Arrays |
| EVA4000/4100<br>EVA6000/6100<br>EVA8000/8100  | <a href="http://h18006.www1.hp.com/storage/disk_storage/eva_diskarrays/eva_arrays/index.html">http://h18006.www1.hp.com/storage/disk_storage/eva_diskarrays/eva_arrays/index.html</a>  |
| HP StorageWorks Command View EVA              | <a href="http://h18006.www1.hp.com/products/storage/software/cmdvieweva/index.html">http://h18006.www1.hp.com/products/storage/software/cmdvieweva/index.html</a>  |
| HP StorageWorks Business Copy EVA             | <a href="http://h18006.www1.hp.com/products/storage/software/bizcopyeva/index.html">http://h18006.www1.hp.com/products/storage/software/bizcopyeva/index.html</a>  |
| HP StorageWorks Continuous Access EVA         | <a href="http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html">http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html</a>  |
| HP StorageWorks Replication Solutions Manager | <a href="http://h18006.www1.hp.com/products/storage/software/repsofmgr/index.html">http://h18006.www1.hp.com/products/storage/software/repsofmgr/index.html</a>  |

An HP Command View EVAperF white paper is also available from the following HP website:

<http://h18006.www1.hp.com/storage/softwhitepapers.html>

