

# HP SAN Connection Manager 3.30 Release Notes

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## Description

HP SAN Connection Manager (SCM) is a GUI-based management application for basic management of storage area network (SAN) components, such as host bus adapters (HBAs), switches, and storage arrays. SCM uses Microsoft's Virtual Disk Service (VDS) to manage storage arrays. SCM provides simplified storage management for VDS-compliant storage devices in a single, integrated, wizard-based user interface.

## Enhancements

SCM 3.30 includes the following enhancement:

- Added support for the P6300 and P6500 storage arrays

## Products and devices supported

SCM supports the following products and devices:

- HP 8/20q Fibre Channel Switch
- HP SN6000 Stackable 8Gb 24-port Single Power Fibre Channel Switch
- HP SN6000 Stackable 8Gb 24-port Dual Power Fibre Channel Switch
- HP SN6000 Stackable 8Gb 12-port Single Power Fibre Channel Switch
- HP EVA4x00/6x00/8x00 with XCS 6.110 or later
- HP EVA4400
- HP EVA6400/8400
- HP MSA1x00 with firmware version 7.00 or later
- HP MSA2000fc, HP StorageWorks MSA2000fc G2
- HP P2000 G3 FC Modular Smart Array System
- HP P6300/P6500

## Operating system support

This section lists the operating systems that support SCM.

The server running SCM management software (the management station) must be running one of the following:

- Microsoft Windows Server 2003 R2 and Windows Storage Server 2003 R2 x64/x86 with Service Pack 2 and Microsoft hotfix QFE932755, available on the Microsoft website at <http://support.microsoft.com/kb/932755>
- Microsoft Windows Server 2008 x64/x86 with Service Pack 2 or later
- Microsoft Windows Server 2008 R2 SP1 x64

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- ⓘ **IMPORTANT:** Early versions of the *HP SN6000 Fibre Channel Switch Quick Start Installation Instructions*, *HP 8/20q Fibre Channel Switch Quick Start Installation Instructions*, and *HP 8/20q and SN6000 Fibre Channel Switch Quick Start Installation Instructions* can indicate that Windows 2008 SP1 is supported for the SCM management station. This is incorrect. SSCM 3.10 or later and SCM 3.30 requires Windows 2008 SP2 or later.
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Supported client operating systems include the following:

- Microsoft Windows Server versions supported for the management station
- Microsoft Windows Server 2003 with SP2 R2
- Microsoft Windows Server 2008 SP2
- Windows Server 2008 R2 SP1
- SUSE Linux Enterprise Server (SLES) 9, 10, 11
- Red Hat Enterprise Linux (RHEL) 4.8, 5.6, 6.1
- VMware ESX 4.0, 4.1
- HP-UX 11.23, 11.31
- Citrix 5.0, 5.6

## System requirements

The management station must meet the following minimum requirements to support SCM and other HP software:

- 2 GB of memory
- 200 MB of disk space
- One 2-GHz processor
- One CD drive
- One Ethernet port
- One or more PCI-e slots for the HP 81Q PCI-e Fibre Channel HBA (or other supported Fibre Channel HBAs)
- Java Runtime Environment (JRE) 1.5 or later
- Internet browser: Microsoft Internet Explorer (IE), Netscape Navigator, or Mozilla Firefox
- HP Command View EVA software (required only for installations with EVA storage arrays)

Non-management stations must meet the following minimum requirements to support SCM and other HP software:

- 1 GB of memory
- 60 MB of disk space for full non-management station installation
- One CD drive
- One Ethernet port
- One or more PCIe slots for the HP 81Q PCIe Fibre Channel HBAs (or other supported Fibre Channel HBAs)
- JRE x86 1.5 or later
- Internet browser: Microsoft IE, Netscape Navigator, or Mozilla Firefox

## Installation instructions

For detailed installation instructions, see the *HP SAN Connection Manager User Guide*, available on the HP website at <http://www.hp.com/go/8Gb-SSC> or <http://www.hp.com/go/SN6000>. Under Support, select **Support for your product**.

## Important information

This section provides important information and workarounds for the installation, Enterprise Virtual Array (EVA), Modular Smart Array (MSA), the switch, and other SCM-related issues.

## Installation issues

- **Linux installation issue with RHEL 5:** For certain distributions, such as Red Hat Enterprise Linux 5, the installation CD is automounted using the following CD label:

```
# /media/HpInstallx.x/
```

If this occurs, the CD can be mounted with the no-execution flag, causing the installation script to fail. Installation failure is indicated by the following error message:

```
# ./install_smb.sh
```

```
bash: ./install_smb.sh: /bin/sh: bad interpreter: Permission denied
```

**Workaround:** Manually unmount the installation CD. For example, if the CD was automounted in `/media/HpInstallx.x`, enter the following commands to remount the CD:

```
# umount /media/HpInstallx.x
```

```
# mkdir -p /mnt/cdrom
```

```
# mount /dev/cdrom /mnt/cdrom
```

If the unmount command fails with a busy warning, ensure that you have closed any applications and consoles using the CD media.

- **On Microsoft Windows Server 2008 and Windows Server 2008 R2,** the MSA2000 uses the native Microsoft MPIO. Use the following procedure to configure MPIO for all Windows 2008 systems in your SAN.

To activate MPIO:

1. Select **Start>Settings>Control Panel**.
2. Double-click the **MPIO** icon.
3. Select the second tab, **Discover Multi-Paths**.

The MSA2000 should appear as HP LOGICAL VOLUME in the Others section in the Device Hardware ID.

4. Select the **HP LOGICAL VOLUME** entry, and then click **Add**.

## EVA issues

- **EVA configuration:** SCM has the following restrictions when managing an EVA array:
  - SCM cannot remove host definitions from the EVA.
  - After adding a port to a host definition, SCM cannot remove the port.
  - HP Command View EVA offers flexibility in the configuration of an EVA. However, SCM may not operate as expected if an array was configured using HP Command View EVA. You can use either SCM or HP Command View EVA to configure an array, but not both.  
Note that you can use HP Command View EVA to delete unwanted entries in an array's configuration (such as a host or port that has been physically removed).
- **EVA login account:** If the EVA login user name is changed, use the HP VDS Configuration Utility for EVA to re-enter the new user name and password. This utility is installed with the EVA VDS hardware provider and can be launched from **Start>Programs>Hewlett-Packard>Hardware Providers**.
- **EVA4400 not discovered on startup:** The EVA4400 is not discovered on startup of SCM.  
**Workaround:** If your SAN contains an EVA4400, ensure that all HP Command view EVA installations in the SAN are running HP Command View EVA 8.0 or later.

## MSA1x00 issues

- **MSA LUN name between Array Configuration Utility (ACU) and SCM does not match:** LUN names created by the MSA ACU and SCM do not match when displayed. The ACU LUN name is partly shown in SCM as LUN identification.
- **MSA hardware provider memory leak:** The HP MSA hardware provider installed with SCM has a memory leak that may increase during VDS operations. To reclaim lost memory, close SCM to unload the MSA hardware provider. See the HP website for updates to the HP MSA hardware provider.
- **Hosts connecting to MSA storage subsystems may not be discovered by SCM during fabric changes:** When MSA responds to a fabric event (such as zoning changes) the HBA agent software takes some time to discover the MSA storage subsystem. When the system is in this state, and SCM is launched, it may not discover the host because the HBA agent software is still busy.  
**Workaround:** If this occurs, either relaunch SCM after a few minutes or refresh the server list, and/or manually add the server.

## Switch issues

- **SCM and switch passwords:** If the switch password is set up or updated using SCM, SCM remembers the password and does not prompt for one when a switch operation is initiated. However, if you set up or change the password in another application (such as QuickTools), SCM cannot retrieve the switch information when launched. SCM shows the default generic switch name, and any switch operation that you request will prompt for the password.
- **SCM shows switch zoning information as Unknown for vendor and device type:** SCM uses the switch zoning component Fibre Channel worldwide port name (WWPN) to match the vendor and device type. If the switch zoning is not WWPN based, it shows the information as Unknown in the Switch Zoning Information dialog box.

## Other issues

- **Hardware limitation causes maximum size LUN fault:** On an HP P2000 G3 FC Modular Smart Array system, expanding LUNs to the maximum size allowed vdisk results in `Device in use HRESULT 0x80042413` error message.

**Workaround:** Do not expand LUN to the maximum size allowed. Any size smaller than the maximum works as expected.

- **Possible links between HBAs and the VC-FC modules shown as dashed lines:** When using VC-FC modules in a BladeSystem, SCM displays the possible links between HBAs and the VC-FC modules. SCM does not have information from the BladeSystem to be able to determine what the active connections are between the blade server HBAs and the VC-FC modules. So, the possible links are displayed as dashed lines when at least one HBA is available through a VC-FC module. These lines do not necessarily indicate the active connections from an HBA to the VC-FC modules. Refer to the BladeSystem for detailed connection information.
- **Port type shown as unknown when displaying the Switch Zoning Information:** If zoning is done manually instead of using the HBA default zoning in SCM, the port type for HP storage arrays are listed as `Unknown` instead of `RAID Storage`.
- **Firmware update verification error:** While upgrading the switch firmware through SCM, you may see the following error message: `Firmware update completed but attempt to verify the new firmware taking effect failed`. If this error occurs, verify that all switches were updated with the new firmware; reload any switches that were not updated.
- **Graphics for the MSA and EVA are not accurate:** The storage subsystem graphics in the **Manage Storage Subsystem** dialog box are intended as an abstract representation of the MSA and EVA storage subsystems and their enclosures and drives. The graphic images do not reflect the physical layout of the subsystems.
- **LUN multipath information:** A LUN's multipath information is available only if the LUN is presented to the management host on which the VDS hardware provider and SCM are installed and running.

**Workaround:** To obtain multipath information for LUNs presented to other hosts, issue the `hpdsm devices` command from either the EVA DSM command line interface (CLI) or the MSA DSM CLI on that host.

- To launch the EVA DSM, select **Start>Programs>Hewlett-Packard>EVA DSM>HPDSM CLI**.
- To launch the MSA DSM, select **Start>Programs>Hewlett-Packard>MSA DSM>HPDSM CLI**.
- **SCM fails to start:** If you install SCM with the MSA only option, and HP Command View EVA is installed, SCM will fail to start. The error `RegOpenKeyEx failed with error 2: The system cannot find the file specified` is displayed when you attempt to start SCM.  
**Workaround:** To correct this problem, reinstall SCM and select the EVA only or the EVA and MSA option if an array is present in the configuration. If no EVA is present, remove the HP Command View EVA suite.
- **IA64 BIOS update:** The HBA driver update feature for Windows on IA64 is not supported in SCM.
- **Format drive message:** During partition creation and formatting for LUNs for Windows Server 2008, a `Windows Format Drive` message is displayed to confirm formatting or cancel.  
**Workaround:** None. This message will not impact the operation, but a new confirmation window is displayed for each new partition. Click **Cancel** to close the window.

- **Server name changes:** If the name or another attribute of a server being managed by SCM is changed independent of SCM, SCM continues to display the original name, even after restarting. The server change is not detected until a `Server Refresh` is performed because SCM matches up the HBA WWN with the saved server data. The saved server data is not updated until a new broadcast or FDMI refresh is performed. A server refresh is not performed on application startup or asynchronously while the application is open.

**Workaround:** To see the new server name, use the **Refresh the Server List** option.

- **Creating partitions on the management station:** Deleting LUNs presented to the management station may cause errors if new LUNs are created immediately after the old LUNs are deleted. The new LUNs may not be initialized and a drive letter not assigned.

**Workaround:** Reboot the management station after deleting any LUNs that were presented to the management station. Then, perform the template deployment or creation of any new LUNs.

- **Maximum size LUN fault:** On an HP P2000 G3 FC Modular Smart Array system, expanding LUNs to the maximum size allowed on a RAID-6 vdisk results in an `Another call in progress HRESULT 0x80042404` error message.

**Workaround:** Do not expand a RAID6 LUN to the maximum size allowed. Any size smaller than the maximum works as expected.

- **The Emulex HBA driver FDMI feature might not function as expected:** In Windows systems, the Emulex HBA driver FDMI feature might not work correctly, resulting in SCM being unable to obtain all the necessary information from the HBA to complete discovery of the HBA.

**Workaround:** For those HBAs affected, you must manually enter information (Host Name and OS type) for each Emulex HBA port in the server as prompted by SCM. If you supply the Host Name and OS type for all HBA ports affected, there is no impact for LUN assignments.

If you do not supply the Host Name and OS type, LUNs cannot be assigned to the individual server. All HBAs without a Host Name and OS type are grouped together. The information that would have been registered by FDMI will not be available for the HBA ports that have been manually added.

This issue is expected to be fixed in the next release of the HBA driver.