Brocade Switch SMI-S Provider for HP Systems Insight Manager

About this document

HP Systems Insight Manager (HP SIM) uses CIM/WBEM servers and providers that conform to the Storage Management Initiative Specification (SMI-S). Before HP SIM can manage and report on a storage system, the appropriate SMI-S provider must be installed and configured.

About the SMI-S Provider

- The SMI-S provider for Brocade switches is also called the *Brocade SMI Agent*.

- If the SMI Agent is installed as a Windows [1] service, the service is called *Brocade SMI Agent (J WBEM Server)* or *J WBEM Server*, depending on the version you have installed.

- The SMI Agent can be installed as a daemon on Linux and Solaris hosts.

- The Brocade SMI Agent is a *proxy* agent to multiple fabrics, and resides on a host (it is not embedded in the switch). The SMI Agent installation and configuration process does not require any modification or upgrade to deployed fabrics.

- The Brocade SMI Agent is supported on Windows, Linux, and Solaris hosts. See the Brocade installation guide for the list of supported operating system versions.

Models supported

Table 1 Switch models

Switch	HP Model
HP Surestore 1GB Fibre Channel Switch	N/A
HP StorageWorks 1GB Fibre Channel SAN Switch	N/A
HP StorageWorks 2GB Core Switch	N/A
HP StorageWorks 2GB SAN Switch	N/A
HP StorageWorks 2GB MSA SAN Switch	N/A
HP StorageWorks 1GB MSA Fabric Switch	N/A
Brocade SilkWorm 200E switch	N/A
Brocade SilkWorm 3000 switch	HP StorageWorks MSA SAN Switch 2/8
Brocade SilkWorm 3014 switch	N/A
Brocade SilkWorm 3016 switch	N/A
Brocade SilkWorm 3200 switch	HP StorageWorks SAN Switch 2/8-EL

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[1] Windows is a U.S. registered trademark of Microsoft Corporation

Switch	HP Model
Brocade SilkWorm 3250 switch	HP StorageWorks SAN Switch 2/8V
Brocade SilkWorm 3800 switch	HP StorageWorks SAN Switch 2/16
Brocade SilkWorm 3850 switch	HP StorageWorks SAN Switch 2/16V
Brocade SilkWorm 3900 switch	HP StorageWorks SAN switch 2/32
Brocade SilkWorm 4012 switch	Brocade 4Gb SAN Switch for HP p-Class BladeSystem
Brocade SilkWorm 4020 switch	N/A
Brocade SilkWorm 4024 switch	Brocade 4Gb SAN Switch for HP c-Class BladeSystem
Brocade SilkWorm 4100 switch	HP StorageWorks SAN Switch 4/32
Brocade SilkWorm 4900 switch	HP StorageWorks 4/64 SAN Switch
Brocade SilkWorm 7500 switch	HP StorageWorks 400 Multi-protocol Router
Brocade SilkWorm 12000 director	HP StorageWorks Core Switch 2/64
Brocade SilkWorm 24000 director	HP StorageWorks SAN Director 2/128
Brocade SilkWorm 48000 director	HP StorageWorks 4/256 SAN Director
Brocade SilkWorm Multiprotocol Router Model AP7420	HP StorageWorks Multi-protocol (MP) Router
Brocade 4Gb SAN Switch for HP c-Class BladeSystem	N/A
Brocade SilkWorm FC4-16IP	HP StorageWorks B-Series iSCSI Director Blade
Brocade SilkWorm FC4-48	HP StorageWorks 4/256 SAN Director 4/48 Blade

Software Compatibility

HP recommends version 120.6.0 of the Brocade SMI Agent for use with HP SIM. Firmware version 5.3.0 is required with this version of the SMI Agent.

Requirements

- HP SIM 5.0 or later must be installed on the central management server (CMS).

- The applicable SMI Agent must be installed on a Windows, Linux, or Solaris server that has LAN connectivity to the switch.

Switch firmware requirements

HP recommends updating your switches to the latest supported firmware version.

Table 2 Supported firmware

Firmware	Notes
Fabric OS v5.2.x	Fabric OS v5.2.x should be used as the proxy switch.
Fabric OS v5.1.0	
Fabric OS v5.0.x	Fabric OS v5.0.1 has known timeout and memory leak issues. HP recommends upgrading these switches to Fabric OS v5.2.x
Fabric OS v3.2.x, Fabric OS v3.1.x	
XPath OS v7.4.1a with SAS 2.1.3h	
XPath OS v7.3.1	
XPath OS v2.6.2x, Fabric OS v2.6.1x	Supported only as the target switch.

Obtaining the SMI Agent

1. Open a web browser and go to http://www.brocade.com/support/SMIAGENT.jsp .

2. Download the latest SMI Agent from the **HP Storage Essentials and Systems Insight Manager** section of the web page:

   - For Windows, select the **Brocade SMI Agent v110.5.0a** .ZIP file.
   - For Linux and Solaris, select the **Brocade SMI Agent v110.5.0a** .GZ file.

3. Download and save the following documents: *Brocade SMI Agent v110.5.0a Release Notes v1.0*, *Brocade SMI Agent v110.5.0 Installation Guide*, and *Brocade SMI Agent v110.5.0 User's Guide*.

Installing the SMI Agent

See the *Brocade SMI Agent v110.5.0 Installation Guide for* instructions.

Installation notes

- With v110.5.0 and later of the SMI Agent, you can enter HTTP/HTTPS ports during installation. If there is a conflict with ports 5988/5989, HP recommends using ports 60000/60001 for Insight Control Data Center Edition.

- When you add a proxy switch in the Proxy Connections Configuration window of the SMI Agent installer, select RPC as the Protocol and set the number of RPC handles to 2.

- HP recommends selecting **Yes** in the Configuring and Starting as a Service window of the SMI Agent installer. This will cause the SMI Agent to run as a service.

- If you want to use the silent installation mode for the SMI Agent, see the Brocade installation guide for instructions.

Known issues

- See the *Brocade SMI Agent 110.5.0a Release Notes v1.0*, and the Frequently Asked Questions sections in the Brocade installation and user guides for more information on known issues with SMI Agent v110.5.0.

- For mulit-homed Brocade SMI Agent servers, the first NIC listed by the OS must have LAN visibility to the HP SIM/HP SE server and the proxy switches listed during the SMI Agent installation. This is because the SMI Agent software always binds to the first NIC in the system.

- During installation, do not enable *mutual authentication* for clients or indications. Select Yes when prompted to enable security, which will allow encrypted https communication.

- Do not use a switch running Fabric OS v2.6.x as a proxy switch to manage a SilkWorm AP7420.

- Firmware v4.4.x is NOT supported. FOS v4.4.0a-f includes a switch reboot counter defect and a memory leak defect. HP recommends upgrading to Firmware v5.2 where possible.

- Firmware v5.0.1x has a memory leak that might appear when you use the SMI Agent to manage the switch.

- With firmware versions v5.0.1a and v5.0.1d, fabrics stop functioning properly, resulting in lost access to the nameserver for attached servers, requiring the affected servers to be rebooted. In some cases, HP StorageWorks EVA array controllers must be power cycled.

- HP recommends upgrading to Firmware v5.2 where possible. Sometimes switches running v5.1x fail to respond within the maximum allowed response time. This can cause HP SIM or HP SE discovery or data collection to fail. This issue is fixed in v5.2, and the maximum response time value can be configured in the FOS.

- When a switch with any firmware version between v4.4.x and v5.0.x is in a disabled state, the Brocade SMI Agent fails to collect port data on that switch. This failure causes data collection in HP SIM to fail for the affected switches.

- If any or all of the devices enabled by SMI Agent A are moved from SMI Agent A to SMI Agent B, you must restart each SMI Agent and run Discovery in HP SIM on the hosts running providers A and B. This is required for HP SIM to reassociate the devices with the correct SMI Agents.

- HP SIM may experience a slight delay in discovering the Brocade switches while the SMI Agent gathers information from the switches for the first time.

- If you use version 5.3.0 of the Fabric Operating System (FOS), you might encounter a problem when you try to run the Switch Manager. If this occurs, try the following solutions:

  - Clear the cache (Temporary Internet files) in the web browser and Java plug-in, and then try accessing the switch again.
  - If clearing the cache does not resolve the issue, downgrade the Java plug-in to version 1.5.0_06 as described in the *Web Tools Administrators Guide*.
  - If your web browser is configured to use a Proxy server, change the settings so the web browser does not use the proxy server to connect to the switch.

Links

- HP SIM overview: http://h18013.www1.hp.com/products/servers/management/hpsim/index.html

- HP SIM SMI-S provider information: http://h18013.www1.hp.com/products/servers/management/hpsim/smi-s-providers.html