

General Notes:

The following platform/OS combinations are supported:

- x86 platform and 32 bit OS
- x64 platform and 32 bit OS
- x64 platform and 64 bit OS
- IA64 platform and (IA)64 bit OS <HP only>
- All the above platform/OS combinations are supported in IPv6 environment as well.

CIM Extension Minimum Requirements:

- 2g physical memory
- 512 MB disk space

OS/SP	Editions	Filesystem	Comments
Windows 2003 SP2 (x86, x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	Product will not support unmounted volumes and external Basic GPT partitions. First-level reparse mount points are supported.
Windows 2003 R2 SP2 (x86, x64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	
Windows 2008 SP1, SP2 (x86, x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	To discover a Windows 2008 host with SE CIM Extension, the firewall port 4673 needs to be opened.
Windows 2008 R2, SP1 (x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	SE will not support unmounted volumes and external Basic GPT partitions. First-level reparse mount points are supported.

HBA

HBAs were tested with recent firmware and drivers, as of this writing. Contact your management server software representative for additional firmware and driver details.

HBA drivers used must be SNIA HBA API compliant.

We do not support multiple OEMs of HBAs in the same server.

Dual-ported HBAs differ in how they appear to the management server software and is dependent on how the vendor implements their API. Some dual-ported HBAs appear as two separate adapters.

Depending on the HBA Firmware and the api versions that are used to retrieve the information, SE may report the HBA type differently from what it actually is on the HBA.

HBA	Driver	Platform	Comment
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Emulex	Scsiport: 5.30a2, 5.31a0 Storport: 2.01a4, 2.10a7, 2.20.006 Fcport: 2.41a1, 2.42a0	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	Emulex HBA Families 2g PCI - LP9002DC, LP9002L, LP952L 2g PCI-X (1.0) - LP9802, LP9802DC, LP982, LP9402DC, LP1050, LP1050DC, LP10000, LP10000DC, LP1005DC, LP9000, LP101 4g PCI-X (2.0) - LP1150, LP11002, LP11000 2/4g PCI Express - LPe11000, LPe11002, LPe11004, LPe1150, LP10000ExDC, LP1050Ex 8g PCIe - LPe12000, LPe12002, LPe12004, LPe1250 Storport supported on Windows 2003. See your HBA supplier's website for QFE updates to the Storport.sys driver required by Microsoft. *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
QLogic	Scsiport: 9.1.2.14, 9.1.4.10 Storport: 9.1.7.16, 9.1.7.18, 9.1.8.16, 9.1.8.25	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	QLogic HBA Families 2g PCI-X (1.0) - QLA2340, QLA2342, QLA2344, QLA2300F, QLA2310F, QLA2342L 4g PCI-X (2.0) - QLA2460, QLA2462 2/4g PCI Express - QLE2460, QLE2462 8g PCIe - QLE2560, QLE2562, QLE2564 Storport supported on Windows 2003. See your HBA supplier's website for QFE updates to the Storport.sys driver required by Microsoft. *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
Brocade	1.1.0.6, 2.1.0.0	Windows 2003 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	Brocade HBA Families 4g PCIe - 415, 425 8g PCIe - 815, 825 *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.

HP - (Emulex)	Scsiport: 5.20a10, 5.30a2 Storport: 2.00a12, 2.01a4, 2.10x1, 2.20.006, 2.43.004	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	2g PCI - FCA2101, FCA2355 2g PCI-X (1.0) - FCA2404, FCA2404DC, AB232A, FCA2404DC, A7298A, A7388A, A7387A, AB466A, AB467A 4g PCI-X (2.0) - FC2143, FC2243 2/4g PCI Express - A7560A, FC2242SR, FC2142SR 8g PCI Express - 81E (AJ762A), 82E (AJ763A) P-Class Blades - Emulex-based Fibre Channel Mezzanine HBA for HP p-Class BladeSystem C-Class Blades - Emulex LPe1105-HP 4gb FC HBA for HP c-Class BladeSystem, Emulex LPe1205-HP 8Gb FC HBA for HP c-Class BladeSystem *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions. Storport supported only on Windows 2003 and greater. See your HBA supplier's documentation for information regarding QFE updates to the Storport.sys driver required by Microsoft.
HP - (Qlogic)	Scsiport: 9.1.0.13, 9.1.3.11 Storport: 9.1.6.15, 9.1.7.17, 9.1.8.17, 9.1.8.25	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	2g PCI-X (1.0) - FCA2214, FCA2214DC, A6826A 4g PCI-X (2.0) - FC1143, FC1243, AB379A 4g PCI Express - FC1142SR, FC1242SR 8g PCI Express - 81Q (AK344A), 82Q (AJ764A) P-Class Blades - QLogic-based Fibre Channel Mezzanine HBA for HP p-Class BladeSystem C-Class Blades - HP QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions. Storport supported only on Windows 2003 and greater. See your HBA supplier's documentation for information regarding QFE updates to the Storport.sys driver required by Microsoft.
HP - (Brocade)	1.1.0.8, 1.1.0.10	Windows 2003 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	4g PCIe - 41B (AP767A), 42B (AP768A) 8g PCIe - 81B (AP769A), 82B (AP770A) , 825 *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem	2.1.1.1	Windows 2008 R2, SP1 Windows 2003 R2	These cards go into a blade enclosure
Multipathing, Volume Managers, File Systems	Version	Platform	Comment
HDLM	5.9, 5.91, 5.9.4, 5.9.5, 6.0, 6.1	See HDLM's support matrix for version support on each OS	HDS arrays only - Note: See vendor's release notes to determine which software versions are support by each OS.

PowerPath	5.0, 5.1, 5.2, 5.2.1	W2K3 R2 SP2 W2K8 SP1, SP2, R2, SP1	Symmetrix, CLARiiON, DMX Refer to the Vendor's release notes for specifics on which Powerpath\OS combo's are supported.
HP MPIO	HP MPIO EVA XL 2.01.01, 3.00.00, 4.00.00 HP MPIO for EVA 4x00/6x00/8x00 v4.01 HP MPIO XP Disk Arrays 2.00.02, 3.00.00, 4.00.00, 4.02.00 HP MPIO DSM Manager 1.02.00, 2.00.00, 4.01.01	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	Support HP MPIO (full feature): - MSA 1000, MSA1500 active/active w\MSA SMI-S provider 1.0.3.0 - EVA XL active/active - HP P9500, XP24000, XP12000, XP10000, XP512, XP128 - Note: See HP's MPIO release notes to determine which software versions are support by each OS.
HP SecurePath 4.0	4.0c sp2-9, 4.0c SP3	Windows 2003 SP2, Windows 2003 R2 SP2	SP has provided a workaround to install spmgr.exe 4.7 version via SecurePathv4.0c SP2-1 that will replace the spmgr version on the host. This exe will look for a previous existence of Secure Path in the system and update the spmgr.exe to 4.7.0.0, if the existent spmgr.exe is lower than version 4.7.0.0. Note: spmgr passwrld must be set in order for SE to discover Secure Path hosts. See Secure Path documentation on how to set the password. Note: Latest CIM extensions required to support Securepath on Windows hosts.
SDD	1.6.2.1-1, 1.6.3.0-2	Windows 2003 SP2	Notes on the display on the Multipathing window in navigation: - SDD paths (disk drives) are displayed in the format "LunIdentifier:CTDP" (Ex 600507630efe01a8000000000001104:c0t0d0p3). The LunIdentifier for SDD devices can be retrieved by "datapath query device -l" - Status for each SDD path is not displayed. - If there are multiple paths, one-to-one mapping between the SDD path to the path from the "datapath query device" command is not possible.
SDDDSM	2.1.3.0-1	Windows 2003 SP2 Windows 2008 SP1	* Refer to Vendor's support matrix for OS version and Array support.
VERITAS Volume Manager (VxVM)	v4.3 MP1 v4.3 MP2 v5.0 V5.1	Windows 2003 R2 SP2 Windows 2008 SP1	No support for unmounted volumes and Basic GPT partitions (note: the version of VxVM reported internally may differ from the marketing/sold version) Refer to Veritas's website for latest versions of Device Drivers and Support.

VERITAS DMP	v4.3 MP1 v4.3 MP2 v5.0 V5.1	Windows 2003 R2 SP2 Windows 2008 SP1	No support for unmounted volumes and Basic GPT partitions (note: the version of VxVM reported internally may differ from the marketing/sold version) Refer to Veritas's website for latest versions of Device Drivers and Support.
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Clusters

It is "cluster aware" with the use of the Cluster Builder capability in which the user manually assigns a cluster node to a cluster name or cluster virtual IP address.

Where noted below, product supports "clustering" in which the product provides automatic agent-based cluster discovery.

There are 2 ways of supporting clusters:

1. "Cluster Builder" - with the use of the Cluster Builder capability , the user can manually assign a cluster node to a cluster (host) name or cluster virtual IP address. This is "Cluster Aware."
2. "Automatic Cluster Discovery" - by installing a CIM extension on a host, the product supports automatic cluster discovery (see table below for supported environments).

In both cases, cluster topology, capacity and properties are represented.

Clusters	Version	Platform	Comment
Microsoft Cluster Server	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2, SP1	x86, x64 and IA64	Clustering support for MSCS Clustering support for MSCS with Veritas Volume Manager & Dynamic Multipathing on Windows. Refer to Veritas's website for latest versions of Device Drivers and Support. IPv6 Support: Microsoft Cluster Server configured with IPv6 address is supported.
HP StorageWorks Cluster Extension			HP StorageWorks Cluster Extension EVA Software only. Supported configurations are - - Windows 2003 MSCS Cluster

General Notes for Discovery of Hosts WITHOUT any CIM Extension:

The following platform/OS combinations are supported:

- x86 platform and 32 bit OS
- x64 platform and 32 bit OS
- x64 platform and 64 bit OS
- IA64 platform and (IA)64 bit OS <HP only>

A Windows host can be discovered only using the management server running on a Windows operating system. Management server installed on a Linux or any other operating system cannot discover a windows host.

Pls refer the HP Storage Essentials User guide for pre-requisites for AGENTLESS discovery of Windows hosts.

- Local administrator privileges is needed for a user to discover Windows host.
- By default, HBA information is not available for hosts running on Microsoft Windows 2003.
- HP MPIO binaries should be specified in the system path, for gathering multipathing details. This is a known third party issue with HP MPIO.
- Limited information related to Disk partitions and Disk drives are available, when the native volume manager volumes are spanned across multiple disks.
- There is no support for reparse mount points.
- Auto discovery of host cluster is not supported. However, discovery of manual cluster (built using Cluster Builder wizard) is supported.

Note: All the above mentioned limitations can be overcome by installing CIM extension on the windows host.

Only Password authentication method in SSH is supported.

IPv6 Support: Windows 2008 & 2008 R2 based platform/OS versions configured with IPv6 address is supported.

OS/SP	Editions	Filesystem	Comments
Windows 2003 SP2 (x86, x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	Product will not support unmounted volumes and external Basic GPT partitions.
Windows 2003 R2 SP2 (x86, x64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	Product will not support unmounted volumes and external Basic GPT partitions.
Windows 2008 SP1, SP2 (x86, x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	- When discovering Windows 2008 host via WMI, the WMI port needs to be opened. (See SE Documentation and Release Notes for more information.) SE will not support unmounted volumes and external Basic GPT partitions.
Windows 2008 R2 (x64, IA64)	Std, Enterprise, and Datacenter editions	Fat,Fat32, NTFS	- When discovering Windows 2008 host via WMI, the WMI port needs to be opened. (See SE Documentation and Release Notes for more information.) SE will not support unmounted volumes and external Basic GPT partitions.

HBA

HBAs were tested with recent firmware and drivers, as of this writing. Contact your management server software representative for additional firmware and driver details.

HBA drivers used must be SNIA HBA API compliant.

We do not support multiple OEMs of HBAs in the same server.

Dual-ported HBAs differ in how they appear to the management server software and is dependent on how the vendor implements their API. Some dual-ported HBAs appear as two separate adapters.

Depending on the HBA Firmware and the api versions that are used to retrieve the information, SE may report the HBA type differently from what it actually is on the HBA.

HBA	Driver	Platform	Comment
Emulex	Scsiport: 5.30a2, 5.31a0 Storport: 2.01a4, 2.10a7, 2.20.006 Fcport: 2.41a1, 2.42a0	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	Emulex HBA Families 2g PCI - LP9002DC, LP9002L, LP952L 2g PCI-X (1.0) - LP9802, LP9802DC, LP982, LP9402DC, LP1050, LP1050DC, LP10000, LP10000DC, LP1005DC, LP9000, LP101 4g PCI-X (2.0) - LP1150, LP11002, LP11000 2/4g PCI Express - LPe11000, LPe11002, LPe11004, LPe1150, LP10000ExDC, LP1050Ex 8g PCIe - LPe12000, LPe12002, LPe12004, LPe1250 Storport supported on Windows 2003. See your HBA supplier's website for QFE updates to the Storport.sys driver required by Microsoft. *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
QLogic	Scsiport: 9.1.2.14, 9.1.4.10 Storport: 9.1.7.16, 9.1.7.18, 9.1.8.16, 9.1.8.25	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	QLogic HBA Families 2g PCI-X (1.0) - QLA2340, QLA2342, QLA2344, QLA2300F, QLA2310F, QLA2342L 4g PCI-X (2.0) - QLA2460, QLA2462 2/4g PCI Express - QLE2460, QLE2462 8g PCIe - QLE2560, QLE2562, QLE2564 Storport supported on Windows 2003. See your HBA supplier's website for QFE updates to the Storport.sys driver required by Microsoft. *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
Brocade	1.1.0.6, 2.1.0.0	Windows 2003 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	Brocade HBA Families 4g PCIe - 415, 425 8g PCIe - 815, 825 *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions.
HP - (Emulex)	Scsiport: 5.20a10, 5.30a2 Storport: 2.00a12, 2.01a4, 2.10x1, 2.20.006	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	2g PCI - FCA2101, FCA2355 2g PCI-X (1.0) - FCA2404, FCA2404DC, AB232A, FCA2404DC, A7298A, A7388A, A7387A, AB466A, AB467A 4g PCI-X (2.0) - FC2143, FC2243 2/4g PCI Express - A7560A, FC2242SR, FC2142SR 8g PCI Express - 81E (AJ762A), 82E (AJ763A) P-Class Blades - Emulex-based Fibre Channel Mezzanine HBA for HP p-Class BladeSystem C-Class Blades - Emulex LPe1105-HP 4gb FC HBA for HP c-Class BladeSystem *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions. Storport supported only on Windows 2003 and greater. See your HBA supplier's documentation for information regarding QFE updates to the Storport.sys driver required by Microsoft.

HP - (Qlogic)	Scsiport: 9.1.0.13, 9.1.3.11 Storport: 9.1.6.15, 9.1.7.17, 9.1.8.17, 9.1.8.25	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	2g PCI-X (1.0) - FCA2214, FCA2214DC, A6826A 4g PCI-X (2.0) - FC1143, FC1243, AB379A 4g PCI Express - FC1142SR, FC1242SR 8g PCI Express - 81Q (AK344A), 82Q (AJ764A) P-Class Blades - QLogic-based Fibre Channel Mezzanine HBA for HP p-Class BladeSystem C-Class Blades - HP QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem *NOTE: Refer to the Vendor's Release Notes to determine which HBAs and Drivers are supported by which OS versions. Storport supported only on Windows 2003 and greater. See your HBA supplier's documentation for information regarding QFE updates to the Storport.sys driver required by Microsoft.
Multipathing, Volume Managers, File Systems	Version	Platform	Comment
HP MPIO	HP MPIO EVA - 4.00.0, 4.01.0 HP MPIO XP - 4.00.0, 4.01.0 HP MPIO DSM Manager - 4.00.0, 4.01.0	Windows 2003 SP2 Windows 2003 R2 SP2 Windows 2008 SP1, SP2 Windows 2008 R2	Support HP MPIO (full feature): - HP EVA 4X00/6X00/8X00 family of disk arrays' - HP XP24000, XP12000, XP10000, XP512, XP128 - Note: See HP's MPIO release notes to determine which software versions are support by each OS.
VERITAS Volume Manager (VxVM)	v5.0 V5.1	Windows 2003 R2 SP2 Windows 2008 SP1	No support for unmounted volumes and Basic GPT partitions Refer to Veritas's website for latest versions of Device Drivers and Support.
VERITAS DMP	v5.0 V5.1	Windows 2003 R2 SP2 Windows 2008 SP1	No support for unmounted volumes and Basic GPT partitions Refer to Veritas's website for latest versions of Device Drivers and Support.