HP StorageWorks EVA software compatibility reference

This series of tables describes the supported hardware, operating system, and software for all HP StorageWorks Enterprise Virtual Array (EVA) software:

— HP StorageWorks Business Copy EVA
— HP StorageWorks Command View EVA
— HPStorageWorks Continuous Access EVA
— HP StorageWorks Replication Solutions Manager (RSM)

Note: Use of HP Business Copy EVA and HP Continuous Access EVA is described with and without HP Replication Solutions Manager, where noted.

EVA storage and EVA software compatibility

This table lists the compatibility betweeen HP StorageWorks EVA software and EVA storage components. "Y" indicates compatibility and "N" indicates no compatibility.

	HP Business Copy EVA 2.3	HP Business Copy EVA 3.0	HP Command View EVA 3.3	HP Command View EVA 4.0	HP Continuous Access EVA 2.0	HP Continuous Access EVA 2.1	HP Replication Solutions Manager 1.0	HP Replication Solutions Manager 1.1[3]
HP Command View EVA 3.3 SMI-S EVA 3.3 SSSU Build 7 for 3.2	Y	Y			Y	Y	Y	Y
HP Command View EVA 4.0 EVAPerf 1.0 SMI-S EVA 4.0 SSSU 4.0.18	N	Y			N	Y	N	Y
EVA3000/EVA5000	Y	Y	Y	Y	Y	Y	Y	Y
VCS 3.014[1]	Y	N	Y	Y	Y	N	Y	
VCS 3.020[2]	Y	Y	Y	Y	Y	Y	Y	Y
VCS 3.025	Y	Y	Y	Y	Y	Y	Y	Y
EVA4000/EVA6000/EVA8000	N	Y	N	Y	N	Y[4]	N	Y
XCS 5.020	N	Y	N	Y	N	Y	N	X Y
Storage Management Appliance 2.1	Y	Y	Y	Y	Y	Y	Y	Y

[1]DR groups between VCS 3.014 and XCS 5.020 are not supported.
[2]DR groups between VCS 3.020 and XCS 5.020 are not supported.
[3]Do not install HP StorageWorks Command View SDM 1.09 and HP Replication Solutions Manager 1.1 on the same management server.
[4]HP Continuous Access EVA features are not supported in direct connect configurations that contain EVA4000, EVA6000, or EVA8000 arrays.

HP StorageWorks EVA software deployment options

You can install HP StorageWorks EVA management and replication software on a management server. The management server types are:

General-purpose server: A server other than the HP OpenView Storage Management Appliance that runs customer applications, such as file and print services

HP OpenView Storage Management Appliance (SMA): A centralized, dedicated monitoring and management hardware-software solution for the storage area network (SAN)

Dedicated management server: A Windows host that is intended solely for HP storage software, such as HP OpenView Storage Node Manager, HP OpenView Storage Area Manager add-on software modules, or HP StorageWorks EVA software

HP ProLiant Storage Server: Specifically, the HP ProLiant DL380 G4 Storage Server (formerly the HP NAS 4000) and the HP ProLiant DL585 Storage Server (formerly the HP NAS 9000)

Required hardware

General-purpose server Dedicated management server	Processor: 1.26 GHz (minimum) Memory: 2 GB (minimum) Disk space requirements: — 120 MB for Command View EVA installation — 10 MB for each managed array — 350 MB for Replication Solutions Manager installation — 10/100 Mps for RSM server to RSM host agent connectivity
Storage Management Appliance	G1, G2, G3
HP ProLiant Storage Server	HP ProLiant DL380 G4 Storage Server (base model) HP ProLiant DL380 G4 Storage Server (SAN model) HP ProLiant DL585 Storage Server HP ProLiant DL585 Dual Core Storage Server **Note:** In most configurations, the HP ProLiant DL380 SAN model is preferred.

Supported Fibre Channel HBAs and drivers

This table lists the Fibre Channel HBAs (vendor and HP models) and drivers that are supported on all management server types.

HBA		EVA3000/EVA5000 configuration		EVA4000/6000/8000 configuration[1]	
Vendor model	HP model	SCSI minport driver	SCSI firmware/BIOS	SCSI miniport driver/ Storport QFE 891793 driver[2]	SCSI and Storport firmware/BIOS
QLogic QLA2340	FCA2214	8.2.0.73	1.34	9.0.2.11/9.0.2.16	1.45
QLogic QLA2342	FCA2214DC				
Emulex LP9802	FCA2404	5-4.82a16	1.01a2/1.63a1	5-5.10a10/5-1.02a7	1.90a4/1.70a1
Emulex LP9802DC	FCA2404DC				
Emulex LP982	FCA2408				
Emulex LP105DC	A7387A	N/A[3]	N/A[3]	5-5.10a10/5-1.02a7	1.90a4/1.70a1
Emulex LP1050	A7388A				

[1]These drivers and firmware are required for SANs containing EVA4000s, EVA6000s, or EVA8000s, but are also supported with EVA3000s and EVA5000s.

[2]For more information about the QLogic Storport driver, go to the following web site and enter your EVA array model: http://welcome.hp.com/country/us/en/support.html.

[3]The 5-4.82a16 driver and 1.01a2 firmware are not supported for the LP1050DC (A7387A) and LP1050 (A7388A) models.

Supported software for management server types

This table lists the software that is supported on each management server type. "Y" indicates support, "N" indicates no support, and "N/A" indicates the software is not applicable to the management server type.

	General-purpose server	Storage Management Appliance	Dedicated management server	ProLiant Storage Server
Microsoft Cluster Server support[1]	Y	Y	Y	Y
HP StorageWorks Business Copy EVA 2.3 and later	Y	Y	Y	Y
HP StorageWorks Replication Solutions Manager 1.0 and later	Y	Y	Y	Y
HP StorageWorks Command View EVA 3.3 and later[2]	Y	Y	Y	Y
HP StorageWorks Secure Path (required for multipath configurations)	Y	N/A	N/A	Y
HP StorageWorks Secure Path Manager	Y	Y	Y	Y
HP OpenView Storage Area Manager	N	Y	Y	N
HSG Element Manager 1.0f	N/A	Y	N/A	N/A
ISEE Remote Support (HP platforms only)	Y	Y	Y	Y
Number of HP StorageWorks Enterprise Virtual Arrays supported	4	16[3]	16	4
Operating system connectivity 3.0e OR Storport Driver	Y	N/A	N/A	Y
Operating systems[2]	Microsoft Windows Server 2003 Enterprise Edition Standard Edition Microsoft Windows 2000 Server or Advanced Server (SP3, SP4) (32-bit)	HP Storage Management Appliance software 2.1 (based on Microsoft Windows 2000)	Microsoft Windows Server 2003 Enterprise Edition Standard Edition (32-bit) Microsoft Windows 2000 Server or Advanced Server (32-bit)	Microsoft Windows Storage Server 2003[3]
WEBES (HP Services obligation required)	Y	Y	Y	Y

[1]HP Command View EVA is not cluster aware.

[2]Software must be installed on the C:\ drive.

[3]When running HP Replication Solutions Manager or HP Business Copy EVA 2.3 on the SMA G1, the maximum number of EVAs supported is four.

Supported EVA replication software operating environments

This table lists the supported operating environments for each operating system or server type. "Y" indicates support, an EVA model indicates support with that EVA model only, and "N" indicates no support. The operating environments are:

HP Business Copy EVA Basic I/O—The ability for HP Business Copy EVA (independent of HP Replication Solutions Manager) to work with this operating system. There may or may not be support through HP RSM on that operating system, as indicated in this table.

HP Continuous Access EVA Basic I/O—The ability for HP Continuous Access EVA (independent of HP Replication Solutions Manager) to work with this operating system. There may or may not be support through HP RSM on that operating system, as indicated in this table.

HP Replication Solutions Manager host agent—The HP RSM host agent is installed on servers running this operating system.

HP StorageWorks DButil—The command line utility that facilitates application-consistent replication of Microsoft SQL Server 2000 databases. HP DButil is installed automatically with the HP RSM host agent on a Windows servers.

Operating system or server type	Environment				HP RSM host agent resource requirements				
	HP Business Copy EVA Basic I/O	HP Continuous Access EVA Basic I/O	HP RSM host agent[6]	HP DButil	Processor	Memory	Disk Space		
							/opt	/etc	/var
Storage Management Appliance	N	N	N	N					
Storage Management Appliance with HP OpenView Storage Area Manager	N	N	N	N					
Dedicated management server	N	N	N	N					
General-purpose server	Y	Y	Y	N					
ProLiant Storage Server	Y	Y	Y	N					
VMWare ESX Server 2.5	EVA3000/5000	EVA3000/5000	N	N					
Windows 2000 Server[1, 2]	EVA3000/5000	EVA3000/5000	Y	N	600 MHz	512 MB	150 MB		
Windows 2000 Advanced Server SP4 (32-bit)[1, 2]	Y	Y	Y	Y					
Windows Server 2003 Standard Edition[1, 2]	Y	Y	Y	Y					
Windows Server 2003 Enterprise Edition (32-bit)[1, 2]	Y	Y	Y	Y					
Windows Server 2003 Enterprise Edition (64-bit)[1, 2]	Y	Y	Y	Y	633 MHz	1 GB	250 MB		
Windows Server 2003 Datacenter Edition (64-bit Itanium)[1]	Y	Y	N	N					
Windows Server 2003 Extended Systems Standard and Enterprise Editions (64-bit)	Y	Y	N	Y					
HP-UX 11.11/11iv1	Y	Y	Y	N	256 Mhz	256MB	385	2	82
HP-UX 11iv2 (PA-RISC)	Y	Y	N	N	1 Ghz	512 MB	501	2	120
HP-UX 11iv2 (Intel)	Y	Y	Y	N					
Solaris 8	EVA3000/5000	EVA3000/5000	N	N	250 Mhz	256 MB	315	2	116
Solaris 9	Y	EVA3000/5000	Y[3]	N					
Solaris 10	EVA4000/6000/8000	N	N	N					
HP OpenVMS 7.2.2	N	EVA3000/5000	N	N					
HP OpenVMS 7.3-1	N	EVA3000/5000	N	N					
HP OpenVMS 7.3-2	Y	EVA3000/5000	N	N					
HP OpenVMS 8.2 on Alpha and Integrity servers	EVA3000/5000	N	N	N					
Tru64 5.1a	N	EVA3000/5000	N	N					
Tru64 5.1b	Y	EVA3000/5000	N	N					
NetWare 6.0, 6.5	EVA3000/5000	EVA3000/5000	N	N					

AIX 5.1	N	EVA3000/5000	N	N					
AIX 5.2	Y	EVA3000/5000	Y[4]	N	340 MHz	256 MB	460	7	115
AIX 5.3	Y	EVA3000/5000	N	N					
United Linux 1.0/SuSE 8 (32-bit) SP3	Y	EVA3000/5000	Y[5]	N	600 MHz	512 MB	320	5	120
United Linux 1.0/SuSE 8 (64-bit)	Y	EVA3000/5000	N	N					
SuSE SLES 9.0 (32- & 64-bit, AMD, Itanium)	Y	EVA3000/5000	N	N					
Red Hat AS 2.1 (32-bit) Update 5, 6	Y	EVA3000/5000	N	N					
Red Hat AS 3.0 (32-bit) Update 4	Y	EVA3000/5000	Y	N					
Red Hat AS 2.1 (64-bit) Update 5, 6	Y	EVA3000/5000	N	N					
Red Hat AS 3.0 (64-bit) Update 4	Y	EVA3000/5000	N	N					
Red Hat AS 4.0 (32- and 64-bit)	Y	EVA3000/5000	N	N					

[1]Replication of Windows dynamic disks is not supported.

[2]This host agent on this operating system depend on SNIA libraries that are delivered with HP's SAN Infrastructure offerings. If you have not already done so, go to the Fibre Channel Host Bus Adapters section on the following web site and download the software for your HBA: http://esqcpqdev1.americas.cpqcorp.net:8030/storage/saninfrastructure.html.

[3]The host agent on this operating system does not support VERITAS DMP when accessing an EVA4000, EVA6000, or EVA8000.

[4]The AIX host agent requires Maintenance Level 4 or later.

[5]The host agent for this operating system does not support Secure Path when accessing an EVA3000 or EVA5000.

[6]See the "Mounting host volumes" table for host volume mounting restrictions.

Volume Manager support

AIX	Native Logical Volume Manager
HP-UX	Native Logical Volume Manager
Red Hat AS 3.0, Update 4	Sistina 1.0.8-2
SuSE SLES 8.0	Sistina 1.0.8
Solaris[1]	VERITAS Volume Manager on EVA3000/EVA5000

[1]The host agent on the Solaris 9 operating system does not support VERITAS Volume Manager when accessing an EVA4000, EVA6000, or EVA8000.

Mounting host volumes

This table describes the operating system support and restrictions for using HP RSM to mount a host volume copy on the same host as the source.

Host operating system	Mount a host volume copy on the same host as the source	Exceptions
AIX	Y	Not if the underlying storage volumes (virtual disks) are on an EVA4000, EVA6000, or EVA8000
HP-UX	Y	
Linux	N	
Solaris	Y	Not copies of Solaris disk groups (volume group)
Windows	Y	Copies of Windows Cluster Quorum disks cannot be mounted on members of the same cluster as the source

Browser support

This table lists the supported browsers and JRE versions you can use to access HP StorageWorks EVA software and Storage Management Appliance user interfaces from the corresponding operating system. The shaded rows indicate that you can browse only to a general-purpose server or dedicated management server, but not to the Storage Management Appliance.

Operating system	Required browser	Supported JRE
Windows 2000 Server	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
Windows 2000 Advanced Server SP4 (32-bit)	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
Windows 2000 Professional	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
Windows Server 2003 Standard Edition	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
Windows Server 2003 Enterprise Edition SP1 (32-bit)	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
Windows XP Professional	Internet Explorer 6.0 SP1	1.4.2_02+ and 1.5.0_01+
HP-UX PA-RISC 11.11/11iv1 (64-bit)	Mozilla 1.7.3	HP's JRE 1.4.2_05+ (64 bit), PA-RISC RTE and 1.5.0_01+
HP-UX 11.23 PI 64	Mozilla 1.7.3	HP's JRE 1.4.2_05+ (64 bit), Itanium RTE and 1.5.0_01+
Solaris 8	Mozilla 1.7.3	1.4.2_02+ (64 bit) and 1.5.0_01+
Solaris 9	Mozilla 1.7.3	1.4.2_02+ (64 bit) and 1.5.0_01+
HP OpenVMS 7.3-2	Mozilla 1.7	1.4.2+
HP OpenVMS 8.2	Mozilla 1.7	1.4.2_02+
Tru64 5.1b	Mozilla 1.7.5	1.4.2_02+
AIX 5.2[1]	Mozilla 1.7.3	1.4.2_02+
AIX 5.3[1]	Mozilla 1.7.3	1.4.2_02+
Red Hat AS 3.0 (32-bit)	Mozilla 1.7.3	1.4.2_02+ (32 bit), RPM format and 1.5.0_01+

[1]Browsing to HP Replication Solutions Manager on this operating system is not supported.

EVA host connectivity

For the supported operating systems of hosts accessing EVA storage, see the OS–specific connectivity installation guides and connectivity release notes on the array web site. From the following URL, select the virtual array system, and then click **Technical documentation**: http://h18006.ww1.hp.com/storage/arraysystems.html

Select the connectivity guide for your operating system and EVA model.