



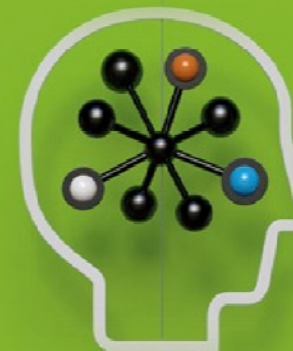
# HP StorageWorks Enterprise Backup Solution (EBS) Hardware/Software Compatibility Matrix

March 2009 Version 1.2

## Start Here

### Key Updates:

- New D2D4112 Backup System
- Added Virtual Machine Support Section
- Updated VLS FW
- Added IBM TSM VLS Deduplication Support
- Added Lotus Domino and VMware VLS Deduplication support
- New Customer Advisory for OBDR with Backup Exec
- Added StorageWorks IP Distance Gateway support



# HP StorageWorks EBS Compatibility Matrix

## Enterprise Backup Solution Compatibility Matrix Index

(Click on topic to jump to that page)

The (  ) icon indicates a hotlink. See [Sample Page Layout](#).

<b>Topic</b>	<b>Page</b>
How To Use This Document	3
Sample Page Layout	4
Firmware for Virtual Library Systems / D2D Backup / Tape Libraries / Autoloaders / Tape Drive Products	5
Virtual Library Systems ESI & TAC Partner Products	6
Advanced VLS and D2D Features	7
<b>D2D4112 Backup System, ESI &amp; TAC Partner Products</b>	8
D2D4000 & 2500 Backup Systems, ESI & TAC Partner Products	9
D2D100 Backup Systems, ESI & TAC Partner Products	10
Tape Libraries/Autoloaders and ESI Partner Products	11
Tape Libraries/Autoloaders and TAC Partner Products	12
Advanced Library Features	13
Backup Application Details	14
Archiving Solution Partners	15
Libraries and Interface Controllers	16
Interface Controller Firmware	17
HP-UX (PA-RISC)	18
HP-UX (Integrity)	19
Windows (x86)	20 - 22
Windows (Integrity)	23
Windows (x64)	24 - 25
Linux (x86)	26 - 27
Linux (Integrity)	28
Linux (x64)	29 - 30
<b>Virtual Machine Support</b>	31 - 32
Solaris	33 - 34
Tru64/OVMS	35
AIX	36
NetWare	37
RAID Arrays	38
Storage Networking	39
ProLiant Storage Servers (NAS) , All-in-One (AiO) Storage Servers	40
Storage Software	41
Legacy Device Support	42
Useful Links	43
Advisories	44

The **HP StorageWorks Enterprise Backup Solution (EBS) Compatibility Matrix** provides information for designing data protection solutions, including backup/restore and archiving, that scale from entry-level workgroups to enterprise-level datacenters. It includes support for Direct Attach SCSI (DAS), Direct Attach Fibre (DAF), and Storage Area Network (SAN). It does not imply product availability.

Updates/changes to individual fields within the Matrix will be **highlighted in bold RED**. Products **highlighted in yellow** will be removed from the EBS Compatibility Matrix in the next release. Previous versions of the EBS Compatibility Matrix are available on the web at [www.hp.com/go/ebs](http://www.hp.com/go/ebs).

HP partners with leading application and product vendors to provide backup/restore, archiving, and data security solutions. See below for information on the Extended Solution Interoperability (ESI) and Tape Automation Compatibility (TAC) categories:

**Extended Solution Interoperability (ESI):** HP performs on-going interoperability and extensive solution testing with these applications to provide fully certified and supported data protection solutions that include HP tape libraries, autoloaders, and virtual library systems. See the VLS or Libraries ESI Partner Products pages for compatibility information. Extensive solution details including operating system details, host bus adapter and driver information, SAN infrastructure, and extended tape library feature support can be found throughout this document.

**Tape Automation Compatibility (TAC):** These products are verified for compatibility with HP tape libraries, autoloaders, and virtual library systems. See the VLS or Libraries TAC Partner Products pages for compatibility information. Consult the product compatibility guide(s) for additional support details such as product version information, driver details, firmware revisions, patch levels, etc.


This document shows compatibility for SAN media servers. A SAN media server is defined as a server with direct attached tape drives. Other operating systems may be supported within EBS by the respective ISVs as LAN clients., where a LAN client does not have direct attached drives but is backed up over a LAN connection to a server with attached tape drives.

Additional technical information can be found in the Enterprise Backup Solution Design Guide and various Backup Application Implementation Guides located on the web at [www.hp.com/go/ebs](http://www.hp.com/go/ebs). For information on stand-alone tape products and compatibility, go to [www.hp.com/go/connect](http://www.hp.com/go/connect).

**Tape Storage and Virtual Library System compatibility by operating system and ISV begins on the [HP-UX \(PA-RISC\)](#) page and continues through the [NetWare](#) page. D2D compatibility by operating system and ISV is only in the [D2D Backup Systems - Operating System, ESI and TAC Partner Products](#) pages.**

**Coming Soon! Sign-up for automatic email notifications as each new matrix is released. More details to follow in upcoming matrix releases.**

HP StorageWorks EBS Compatibility Matrix						
Windows (Integrity)						
DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	BMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems<sup>2</sup></b>						
Windows Server 2003 (64-bit)	sp2	sp2	sp2	sp2		sp2
<b>Servers</b>						
HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)	✓	✓	✓	✓		✓
<b>4Gb Fibre Channel Host Bus Adapters<sup>1,4</sup> (HP Branded / 3rd Party)</b>						
HP1105 (4Gb, PCI-e) for HP e-Class BladeSystem						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.2.00a12	6.2.00a12	6.2.00a12	6.2.00a12		6.2.00a12
AB002A / Emulex LP1150 (4Gb, PCI-e)						
AB003A / Emulex PL11002 (4Gb, PCI-e)						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.2.00a12	6.2.00a12	6.2.00a12	6.2.00a12		6.2.00a12
A0311A / QLogic QLE2460 (4Gb, PCI-e)						
A0300A / QLogic QLE2462 (4Gb, PCI-e)						
ER	1.09	1.09	1.09	1.09		1.09
WIN 2003 StorPort Driver <sup>5,7</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18		9.1.3.18
AD167A / Emulex LP1150 (4Gb, PCI-X 2.0)						
AD168A / Emulex LP11002 (4Gb, PCI-X 2.0)						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 SCSIport Driver	6.5.30a2	6.5.30a2	6.5.30a2	6.5.30a2		6.5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.2.00a12	6.2.00a12	6.2.00a12	6.2.00a12		6.2.00a12
A8429A / QLogic QLA2460 (4Gb, PCI-X 2.0)						
A8379A/B / QLogic QLA2462 (4Gb, PCI-X 2.0)						
ER	1.09	1.09	1.09	1.09		1.09
WIN 2003 StorPort Driver <sup>5,7</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18		9.1.3.18
<b>2Gb Fibre Channel Host Bus Adapters<sup>1,4</sup> (HP Branded / 3rd Party)</b>						
A8446A / Emulex LP1060C (2Gb, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5		1.91a5
WIN 2003 SCSIport Driver	6.5.30a2	6.5.30a2	6.5.30a2	6.5.30a2		6.5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.1.20a7	6.1.20a7	6.1.20a7	6.1.20a7		6.1.20a7
A7298A / Emulex LP982 (2Gb, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5		1.91a5
WIN 2003 SCSIport Driver	6.5.30a2	6.5.30a2	6.5.30a2	6.5.30a2		6.5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.1.20a7	6.1.20a7	6.1.20a7	6.1.20a7		6.1.20a7
A8222A / Emulex LP9802 (2Gb, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5		1.91a5
WIN 2003 SCSIport Driver	6.5.30a2	6.5.30a2	6.5.30a2	6.5.30a2		6.5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6.1.20a7	6.1.20a7	6.1.20a7	6.1.20a7		6.1.20a7
<b>SCSI Host Bus Adapters<sup>8</sup></b>						
A7173A (Ultra320, PCI-X, 2 channel)						
	✓	✓	✓	✓		✓
<b>Disk Array Multipath Support<sup>4</sup></b>						
Windows MPIO <sup>6</sup>						
	✓	✓	✓	✓		✓
<b>High Availability<sup>3</sup></b>						
Windows (MSCS)						
	✓	✓	✓	✓		✓

CLICK  to navigate to the HP product webpage

CLICK  to navigate to the firmware/driver download page

Red indicates a changes from last month

NOTES: section contains specific configuration details

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Matrix Version

- 5) Please reference ITV application installation/support document for specific driver and patch requirements.
- 6) Windows FullFeature MPIO software support. Clusters sharing disk and tape on the same HBA require StorPort.
- 7) All non-x86 systems running applications other than Tru64 require updated Storport.sys (minimum) or KB916008 (recommended).
- 8) Refer to server QuickSpecs to determine which HBAs are supported.

Darkened section indicates environment currently not supported by application

Disk Storage Systems <sup>1</sup>		
Virtual Library Systems	Firmware	Deduplication
<b>VLS 12000 EVA Gateway</b>	2.3.0	<b>3.1.2</b> <sup>4</sup>
EVA 4000/6000/8000		6.200 <sup>3</sup>
EVA 4100/6100/8100		6.200 <sup>3</sup>
EVA 4400		9.004
EVA 3000/5000 <sup>2</sup>		4.100
<b>VLS 9000 Series</b>	2.3.0	<b>3.1.2</b> <sup>4</sup>
<b>VLS 6800 Series</b>	1.2.0	
<b>VLS 6600 Series</b>	2.3.0	<b>3.1.2</b> <sup>4</sup>
<b>VLS 6500 Series</b>	2.3.0	
<b>VLS 6200 Series</b>	2.3.0	<b>3.1.2</b> <sup>4</sup>
<b>VLS 6100 Series</b>	2.3.0	

Disk-to-Disk Backup Systems	Firmware
<b>D2D4112 (Fibre Channel &amp; iSCSI)</b>	<b>100.357</b>
<b>D2D4009fc</b>	100.320
<b>D2D4004fc</b>	100.320
<b>D2D4009i</b> (iSCSI)	100.321
<b>D2D4004i</b> (iSCSI)	100.321
<b>D2D2503i</b> (iSCSI)	100.319
<b>D2D130</b> (iSCSI)	Kn7b
<b>D2D120</b> (iSCSI)	Kn7b

Tape Storage <sup>1</sup>		
Enterprise Class Libraries		Firmware
<b>HP Secure Key Manager</b> <sup>5</sup>		4.8.1
<b>ESL E-Series</b>		6.23
Ultrium 1840 FC	(LTO-4 FC)	H36W <sup>5</sup>
Ultrium 960 FC	(LTO-3 FC)	L67W
Ultrium 460 FC	(LTO-2 FC)	K48W
SDLT 600	(SCSI)	v41
<b>EML E-Series</b>		1223
Ultrium 1840 FC	(LTO-4 FC)	H36S <sup>5</sup>
Ultrium 960 FC	(LTO-3 FC)	L6CS
Business Class Libraries		
<b>MSL 8096</b>		9.10
<b>MSL 4048</b>		6.70
<b>MSL 2024</b>		4.40
Ultrium 1840	(LTO-4 FC)	H49W
Ultrium 1840	(LTO-4 SCSI)	B49W
Ultrium 1760	(LTO-4 SAS HH)	U28W
Ultrium 1760	(LTO-4 SCSI HH)	W24W
Ultrium 960	(LTO-3 4Gb FC)	M63W
Ultrium 960	(LTO-3 FC)	L63W
Ultrium 960	(LTO-3 SCSI)	G63W
Ultrium 920	(LTO-3 SCSI HH)	D22W
Ultrium 920	(LTO-3 SAS HH)	C24W
<b>MSL 6000 Series</b>		5.20
Ultrium 1840	(LTO-4 SCSI)	B45W
Ultrium 960	(LTO-3 SCSI)	G65W
SDLT 600	(SCSI)	v41
Tape Autoloaders		
<b>1/8 G2 Autoloader</b>		2.50
Ultrium 1760	(LTO-4 SAS HH)	U28W
Ultrium 1760	(LTO-4 SCSI HH)	W24W
Ultrium 920	(LTO-3 SAS HH)	C24W
Ultrium 920	(LTO-3 SCSI HH)	D22W
Ultrium 448	(LTO-2 SCSI HH)	S63W

### NOTES:

- 1) See "[How To Use This Document](#)" for description of support.
- 2) EVA3000/5000 support requires minimum VLS firmware version 1.2.0.
- 3) EVA 4x00/6x00/8x00 support requires minimum XCS firmware version 6.110
- 4) See the *Advanced VLS and D2D Features* [Page 7](#) for details.

- 5) HP Secure Key Manager (SKM) requires ESLe LTO4 drive firmware version H36W or later and EML LTO4 drive firmware version H36S or later and that the client tape libraries and Interface Controllers use firmware package i232 or later. See the Interface Controller table on [Page 17](#) for the full list of firmware requirements.

# HP StorageWorks EBS Compatibility Matrix

## Virtual Library Systems, ESI and TAC Partner Products

DAS, DAF and SAN Support <sup>1</sup>	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Virtual Library Systems</b>	<b>Extended Solution Interoperability (ESI) <sup>1</sup></b>					
<b>VLS 12000 EVA Gateway</b> EVA 4000/6000/8000 EVA 4100/6100/8100 EVA 4400 EVA 3000/5000	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 9000 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 6800 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 6600 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 6500 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 6200 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓
<b>VLS 6100 Series</b>	✓	✓ <sup>2</sup>	✓	✓	✓	✓

DAS, DAF and SAN Support <sup>1</sup>	Software TAC Partners <sup>1</sup>										Hardware TAC Partners <sup>1</sup>					
Virtual Library Systems	HP File System Extender	Atempo Time Navigator	BakBone NetVault	BridgeHead HT ISM Suite	CommVault QInetix Galaxy	NetApp Data ONTAP 7.2.x (NDMP)	QStar HSM	Quantum StorNext	SGL FlashNet	Syncsort Backup Express	Cisco MDS 9000 SME	QStar Data Director				
<b>VLS 12000 EVA Gateway</b> EVA 4000/6000/8000 EVA 4100/6100/8100 EVA 4400 EVA 3000/5000	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 9000 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 6800 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 6600 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 6500 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 6200 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					
<b>VLS 6100 Series</b>	✓	✓	✓	✓	✓	✓ <sup>3</sup>			✓	✓	✓					

Indicates Partners with Archiving Solutions - See [Page 15](#) for more detail

- NOTES:**
- 1) See "[How To Use This Document](#)" for description of support.
  - 2) VLS software version 2.1.0 or later is required with ARCserve 11.1 or 11.5 running on Linux. See Customer Advisory [c01181673](#) for further details.
  - 3) Support is with LTO emulations only.

Advanced VLS and D2D Features

VLS Accelerated Deduplication <sup>2</sup>		Accelerated Deduplication requires integration with backup application and data source							Automigration Support
DAF and SAN Support <sup>1</sup>	Minimum FW required	File System <sup>5</sup>	MS Exchange (Non-MAPI)	Oracle	MS SQL Server	NDMP	VMware	Lotus Domino	
Data Protector 6.1 <sup>3</sup>	3.1.2	Win2003 - x86, x64, IA64 RH 3.0, 4.0, 5.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23, 11.31 Solaris 9, 10 AIX 5.3 Tru64 5.1B OVMS 8.3	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup		File Backup VMware Agent	File Backup	Smart copy (VLS 2.3.x code only)
Data Protector 6.0 <sup>3</sup>	3.1.2	Win2003 - x86, x64, IA64 RH 3.0, 4.0, 5.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23, 11.31 Solaris 9, 10 AIX 5.3 Tru64 5.1B OVMS 8.3	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup		File Backup	File Backup	
Data Protector 5.5 <sup>3</sup>	3.1.2	Win2003 - x86, x64, IA64 RH 3.0, 4.0, 5.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23, 11.31 Solaris 9, 10 AIX 5.3 Tru64 5.1B OVMS 8.3	Exchange 2003 File Backup Exchange 2003 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup		File Backup	File Backup	
NetBackup 6.5	3.1.2	Win2003 - x86, x64, IA64 RH 3.0, 4.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23 Solaris 9, 10 AIX 5.3 Tru64 5.1B	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup SQL 2005 Agent Backup	NetApp Filer Backup	File Backup	File Backup	
NetBackup 6.0	3.1.2	Win2003 - x86, x64, IA64 RH 4.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23 Solaris 9, 10	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup SQL 2005 Agent Backup	NetApp Filer Backup	File Backup	File Backup	
NetBackup 5.1	3.1.2	Win2003 RH 4.0, SUSE 10 HP-UX 11.11 Solaris 10	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup SQL 2005 Agent Backup	NetApp Filer Backup	File Backup	File Backup	
TSM <sup>3</sup> 5.5, 5.4, 5.3	3.1.2	Win2003 - x86, x64, IA64 RH 3.0, 4.0, 5.0 - x86, x64 SUSE 10 - x86 HP-UX 11.11, 11.23 Solaris 9, 10 AIX 5.3	Exchange 2003 File Backup Exchange 2003 Agent Backup Exchange 2007 File Backup Exchange 2007 Agent Backup	9, 10, 11 File Backup 9, 10, 11 RMAN Backup <sup>4</sup>	File Backup	NetApp Filer Backup (LAN backup only)	File Backup Agent Backup (7.0 and 8.0.1)		

D2D Advanced Features	Dynamic Deduplication Does NOT require integration with backup applications	Replication Requires separate license purchase for enablement
<b>D2D4112</b> (Fibre Channel & iSCSI)	✓	✓
<b>D2D4009fc</b> (Fibre Channel)	✓	✓
<b>D2D4004fc</b> (Fibre Channel)	✓	✓
<b>D2D4009i</b> (iSCSI)	✓	✓
<b>D2D4004i</b> (iSCSI)	✓	✓
<b>D2D2503i</b> (iSCSI)	✓	✓
<b>D2D130</b> (iSCSI)		
<b>D2D120</b> (iSCSI)		

NOTES:

1) See "How To Use This Document" for description of support.

2) NOT supported in the VLS300, VLS1001, VLS1002, VLS6100, VLS6500 or VLS6800.

3) Supports 6200/6600 single node series, and up to 2-nodes on multimode VLS9000/12000 systems running minimum v3.1.2 code.

4) RMAN script modifications required to enable deduplication. See [HP StorageWorks Deduplication Solutions Guide](#) for details.

5) Raw Disk deduplication is also supported for the listed file systems.







D2D Backup Systems		Supported OS		DAF, iSCSI and SAN Support <sup>1</sup>																													
				Native Applications			Software ESI Partners <sup>1</sup>					Software TAC Partners <sup>1</sup>																					
		TAR	CPIO	DD	Fbackup / Freecover	Ufsdump / Ufsrestore	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup	HP Data Protector Express	HP NonStop Servers	HP File System Extender	Atempo Time Navigator	BakBone NetVault	BridgeHead HT ISM Suite	CommVault QNetix Galaxy	EMC Retrospect	Front Porch Digital DVArchive	IBM TSM Express	Microsoft DPM 2007	NeoScale CryptoStor	NetApp Data ONTAP 7.2.x (NDMP)	Oracle Secure Backup	QStar HSM	SGL FlashNet	Syncsort Backup Express	XenData Archive Series	Yosemite Backup		
D2D110 <sup>2</sup> D2D120 <sup>2</sup> D2D130 <sup>2</sup>	Windows 2008 (x86)											✓	✓																			✓	✓
	Windows 2008 (x64)											✓	✓																			✓	✓
	Windows 2003 (x86) <sup>5</sup>	✓						✓	✓	✓	✓	✓	✓			✓	✓															✓	✓
	Windows 2003 (x64) <sup>5</sup>	✓						✓	✓	✓	✓	✓	✓			✓	✓															✓	✓
	Windows 2003 (IA-64) <sup>5</sup>	✓						✓	✓	✓	✓	✓	✓			✓	✓																
	Windows 2000 <sup>5</sup>	✓						✓	✓	✓		✓	✓			✓	✓																
	Windows Vista (x86)											✓	✓				✓																
	Windows Vista (x64)											✓	✓				✓																
	Windows XP (x86) <sup>5</sup>	✓						✓	✓			✓	✓				✓																
	Windows XP (x64) <sup>5</sup>	✓						✓	✓			✓	✓				✓																
	Novell OES 2		✓	✓	✓				✓				✓												✓								
	RHEL 5 (x86)		✓	✓	✓								✓				✓								✓								
	RHEL 5 (x64)		✓	✓	✓								✓				✓																
	RHEL 5 (IA-64)		✓	✓	✓								✓				✓																
	SLES 10 (x86) <sup>6</sup>		✓	✓	✓			✓	✓				✓				✓									✓							
	SLES 10 (x64) <sup>6</sup>		✓	✓	✓			✓	✓				✓				✓									✓							
	SLES 10 (IA-64) <sup>6</sup>		✓	✓	✓			✓	✓				✓				✓									✓							

**NOTES:**  
 1) D2D ISV by OS compatibility is explicitly listed only in this D2D section and cannot be implied from any other section of EBS Matrix.  
 2) Supported with Embedded iSCSI or Qlogic QLA4050 PCI-X iSCSI Initiator HBA only  
 3) SAN support only with 4 Gb FC HBAs listed in the EBS Matrix.  
 4) Supported with QLogic QLA4050 PCI-X iSCSI Initiator HBA only

5) Supported with minimum Microsoft iSCSI Initiator v2.07.  
 6) Supported with minimum SLES 10 SP1.  
 7) Supported with minimum SLES 10 SP2.

# HP StorageWorks EBS Compatibility Matrix

## Tape Libraries/Autoloaders and Extended Solution Interoperability (ESI) Partner Products

DAS, DAF, and SAN Support <sup>1</sup>	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Enterprise Class Libraries</b>						
<b>Extended Solution Interoperability (ESI) Partners <sup>1</sup></b>						
<b>HP Secure Key Manager</b> <sup>8, 11</sup>	✓	✓	✓	✓	✓	✓
<b>ESL E-Series</b>	✓	✓	✓	✓	✓	✓
Ultrium 1840 FC <sup>6</sup> (LTO-4 FC)	✓	✓	✓	✓	✓	✓
Ultrium 960 FC (LTO-3 FC)	✓	✓	✓	✓	✓	✓
SDLT 600 (SCSI)	✓	✓	✓	✓	✓	✓
<b>EML E-Series</b>	✓	✓	✓	✓	✓	✓
Ultrium 1840 FC <sup>6</sup> (LTO-4 FC)	✓	✓	✓	✓	✓	✓
Ultrium 960 FC (LTO-3 FC)	✓	✓	✓	✓	✓	✓
<b>Business Class Libraries</b>						
<b>MSL LTO-4 Encryption Kit</b> <sup>10, 11</sup>	✓	✓	✓	✓	✓	✓
<b>MSL 8096</b> <sup>2</sup>	✓	✓	✓	✓	✓ <sup>9</sup>	✓
<b>MSL 4048</b> <sup>2</sup>	✓	✓	✓	✓	✓ <sup>9</sup>	✓
<b>MSL 2024</b> <sup>2</sup>	✓	✓	✓	✓	✓ <sup>9</sup>	✓
Ultrium 1840 <sup>6</sup> (LTO-4 FC)	✓	✓	✓	✓	✓	✓
Ultrium 1840 <sup>6</sup> (LTO-4 SCSI)	✓	✓	✓	✓	✓	✓
Ultrium 1760 <sup>3,6</sup> (LTO-4 SAS HH)	✓	✓	✓	✓	✓	✓
Ultrium 1760 <sup>6,7</sup> (LTO-4 SCSI HH)	✓	✓	✓	✓	✓	✓
Ultrium 960 (LTO-3 4Gb FC)	✓	✓	✓	✓	✓	✓
Ultrium 960 (LTO-3 FC)	✓	✓	✓	✓	✓	✓
Ultrium 960 (LTO-3 SCSI)	✓	✓	✓	✓	✓	✓
Ultrium 920 (LTO-3 SCSI HH)	✓	✓	✓	✓	✓	✓
Ultrium 920 <sup>3</sup> (LTO-3 SAS HH)	✓	✓	✓	✓	✓	✓
<b>MSL 6000 Series</b>	✓	✓	✓	✓	✓	✓
Ultrium 1840 <sup>12</sup> (LTO-4 SCSI)	✓	✓	✓	✓	✓	✓
Ultrium 960 (LTO-3 SCSI)	✓	✓	✓	✓	✓	✓
SDLT 600 (SCSI)	✓	✓	✓	✓	✓	✓
<b>Ultrium Tape Autoloaders</b> <sup>2,4,5</sup>						
<b>1/8 G2 LTO-4 Encryption Kit</b> <sup>10, 11</sup>	✓	✓	✓	✓	✓	✓
<b>1/8 G2 Autoloader</b>	✓	✓	✓	✓	✓	✓
Ultrium 1760 <sup>3,6</sup> (LTO-4 SAS HH)	✓	✓	✓	✓	✓	✓
Ultrium 1760 <sup>6</sup> (LTO-4 SCSI HH)	✓	✓	✓	✓	✓	✓
Ultrium 920 <sup>3</sup> (LTO-3 SAS HH)	✓	✓	✓	✓	✓	✓
Ultrium 920 (LTO-3 SCSI HH)	✓	✓	✓	✓	✓	✓
Ultrium 448 (LTO-2 SCSI HH)	✓	✓	✓	✓	✓	✓
<b>Advanced Drive and Media Features</b>						
Ultrium LTO4 Application Key Management	✓	✓		✓	✓	✓
Ultrium WORM	✓	✓	✓	✓	✓	✓
SDLT 600 WORM		✓	✓	✓	✓	✓

**NOTES:**

- 1) See "[How To Use This Document](#)" for description of support.
- 2) Autoloaders, MSL 2024, MSL 4048, and MSL 8096 are not supported with SMART Array Controllers.
- 3) Automation products with SAS drives must be connected using the HP SC44Ge SAS HBA.
- 4) Autoloaders are only supported in Direct Attach SCSI & SAS configurations.
- 5) Refer to EBS Design Guide for additional info on the use of native backup commands and programs.

- 6) LTO4 (Ultrium 1840 and 1760) drives support AES hardware encryption. Refer to the backup/restore application vendor for LTO4 hardware encryption support details.
- 7) Supported with MSL4048 and MSL2024 only
- 8) Please refer to Customer Advisory "[c01269477](#)" for operational details.
- 9) Not supported with Symantec Backup Exec for NetWare (BENW)
- 10) USB Token for use only with LTO-4 1/8 G2 Autoloaders and MSL2024/4048/8096 Tape Libraries.

- 11) SKM and EK are designed to provide encryption keys to LTO4 tape drives in HP tape libraries, transparent to the ISV software. Their use with all ISV software in the EBS matrix has been verified, and is fully supported.
- 12) MSL 6000 Series libraries do not have library key management for the LTO4 drives. The key management must come from the backup application.



# HP StorageWorks EBS Compatibility Matrix

## Advanced Library Features

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Enterprise Libraries</b>	<b>IMPORTANT:</b> See the <a href="#">Backup Application Details</a> page for the latest supported versions of backup software.					
HP Secure Key Manager	✓	✓	✓	✓	✓ <sup>4</sup>	✓
ESL E-Series 2 Unit Cross Link <sup>1</sup>	✓	✓ <sup>3</sup>	✓	✓		✓
ESL E-Series 3-5 Unit Cross Link <sup>1</sup>	✓			✓		✓
ESL Mixed Media	✓	✓ <sup>3</sup>	✓	✓	✓ <sup>4</sup>	✓
ESL Library Partitioning	✓	✓ <sup>3</sup>	✓	✓	✓ <sup>4</sup>	✓
EML Library Partitioning	✓		✓	✓	✓ <sup>4</sup>	✓
<b>Midrange Libraries</b>						
MSL G3 LTO-4 Encryption Kit (EK) <sup>5, 6</sup>	✓	✓	✓	✓	✓ <sup>4</sup>	✓
1/8 G2 Autoloader Encryption Kit (EK) <sup>5, 6</sup>	✓	✓	✓	✓	✓ <sup>4</sup>	✓
MSL G3 Library Partitioning	✓	✓	✓	✓	✓ <sup>4</sup>	✓
MSL 6000 Multi-Unit Scalability <sup>1, 2</sup>	✓	✓	✓	✓	✓ <sup>4</sup>	✓
MSL 6000 Mixed Media Support	✓	✓	✓	✓	✓ <sup>4</sup>	✓

### NOTES:

- 1) Contact your ISV for scalability support.
- 2) MSL multi-unit scalability is with a vertical pass-through mechanism.
- 3) NetWare is supported with ESL libraries in a homogeneous environment only.
- 4) Windows support only.

- 5) USB Encryption Key server token for LTO-4 based Autoloaders, MSL2024, MSL4048, and MSL8096 libraries.
- 6) SKM and EK are designed to provide encryption keys to LTO4 tape drives in HP tape libraries, transparent to the ISV software. Their use with all ISV software in the EBS matrix has been verified, and is fully supported.

# HP StorageWorks EBS Compatibility Matrix

## Backup Application Details <sup>1</sup>

	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec (Windows)	Symantec Backup Exec (NetWare)	Symantec Veritas NetBackup
<b>Partner Device Compatibility Pages <sup>1</sup></b>	<a href="#">Data Protector HCL</a>	<a href="#">ARCserve HCL</a>	<a href="#">NetWorker HCL</a>	<a href="#">Tivoli Storage Manager HCL</a>	<a href="#">Backup Exec HCL</a>	<a href="#">Backup Exec HCL</a>	<a href="#">NetBackup HCL</a>
<b>Recommended Tape Driver</b>	Native Drivers	CABA Drivers	HP Drivers	Tivoli Drivers	BE Drivers	BE Drivers	HP or NBU Drivers

## Latest and Minimum Application Version Support

	HP Data Protector		CA ARCserve		EMC NetWorker		IBM Tivoli Storage Manager		Symantec Backup Exec (Windows)		Symantec Backup Exec (NetWare)		Symantec Veritas NetBackup	
<b>Enterprise Class Libraries</b>	Latest	Minimum	Latest	Minimum	Latest	Minimum	Latest	Minimum	Latest	Minimum	Latest	Minimum	Latest	Minimum
ESL E-Series	6.1	5.0	12.0 <sup>5</sup>	9.0	7.4	6.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	9.0	9.2	9.0	6.5	4.5
EML E-Series	6.1	5.1	12.0 <sup>5</sup>	9.0	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10.0			6.5	5.0
<b>Virtual Library Systems</b>														
VLS 12000 EVA Gateway	6.1	5.5	12.0 <sup>5,7</sup>	11.1 <sup>7</sup>	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	10.0			6.5	5.0
VLS 9000 Series	6.1	5.5	12.0 <sup>5,7</sup>	11.1 <sup>7</sup>	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	10.0			6.5	5.0
VLS 6000 Series	6.1	5.1	12.0 <sup>5,7</sup>	11.1 <sup>7</sup>	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	10.0			6.5	5.0
<b>Disk-to-Disk Backup Systems</b>														
<b>D2D4112 Backup System (Fibre Channel &amp; iSCSI)</b>	<b>6.0</b>	<b>6.0</b>							<b>12.5</b>	<b>12.5</b>				
D2D Backup Systems 4000 Series (Fibre Channel)	6.1	5.5	12.0 <sup>5</sup>	11.5	<b>7.4</b>	<b>7.3</b>	5.5	5.4	12.5	12.0			6.5	6.0
D2D Backup Systems 4000 Series (iSCSI)	6.0	5.5	12.0 <sup>5</sup>	11.5	7.4	7.3	5.5	5.4	12.5	12.0			<b>6.5</b>	<b>6.5</b>
D2D Backup Systems 2500 Series (iSCSI)	6.0	5.5	12.0 <sup>5</sup>	11.5	7.4	7.3	5.5	5.4	12.5	12.0			<b>6.5</b>	<b>6.5</b>
D2D Backup Systems 100 Series (iSCSI)	6.0	5.5	12.0 <sup>5</sup>	11.5	7.4	7.3	5.5	5.4	12.5	11d			6.5	6.0
<b>Business Class Libraries</b>														
MSL 8096	6.1	5.5	12.0 <sup>5</sup>	11.1	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10d <sup>2,4</sup>			6.5	6.0
MSL 4048	6.1	5.1	12.0 <sup>5</sup>	11.1	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10d <sup>2,4</sup>			6.5	6.0
MSL 2024	6.1	5.1	12.0 <sup>5</sup>	11.1	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10d <sup>2,4</sup>			6.5	6.0
MSL 6000 Series	6.1	5.0	12.0 <sup>5</sup>	9.0	7.4	6.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	9.0	9.2	9.0	6.5	4.5
<b>Autoloaders</b>														
1/8 G2 Tape Autoloader (Ultrium 1760 SAS)	6.1	5.5	12.0 <sup>5</sup>	11.5	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10d <sup>3</sup>	9.2	9.0	6.5	6.0
1/8 G2 Tape Autoloader (Ultrium 1760 SCSI)	6.1	5.5	12.0 <sup>5</sup>	11.5	7.4	7.0	5.5 <sup>8</sup>	5.3	12.5 <sup>9</sup>	10d <sup>3</sup>	9.2	9.0	6.5	6.0
1/8 G2 Tape Autoloader (Ultrium 920)	6.1	5.5	12.0 <sup>5</sup>	11.5	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	10d <sup>3</sup>	9.2	9.0	6.5	6.0
1/8 G2 Tape Autoloader (Ultrium 920 SAS)	6.1	5.5	12.0 <sup>5</sup>	11.5	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	11d <sup>4</sup>			6.5	6.0
1/8 G2 Tape Autoloader (Ultrium 448)	6.1	5.5	12.0 <sup>5</sup>	11.5	7.4	7.0	5.5	5.3	12.5 <sup>9</sup>	10d <sup>3</sup>	9.2 <sup>6</sup>	9.0 <sup>6</sup>	6.5	6.0

### NOTES:

- 1) Use the latest backup application maintenance release unless otherwise noted. Refer to the backup application vendor for specific operating system support, patches, builds, and drivers required to support HP tape automation and virtual library products.
- 2) Backup Exec version 10d and Device Driver Installer (DDI) version 20060615 or later are required.
- 3) Backup Exec version 10d and Device Driver Installer (DDI) version 20061015 or later are required.
- 4) Backup Exec version 11d and Device Driver Installer (DDI) version 20061215 or later are required.

- 5) CA ARCserve 12.0 only supports Windows based media servers.
- 6) BENW 9.x Driver SET 2 is required for Ultrium 448 1/8 G2 Autoloader support. Also, multi-LUN support must be enabled on the SCSI HBA.
- 7) VLS models 6200, 6600, and the 12000 EVA Gateway running software version 2.0.0 are not currently supported with ARCserve 11.1, 11.5 or 12 running on Linux. See Customer Advisory "[c01181673](#)" for further details.
- 8) TSM 5.4.2 or later is required to support LTO4 drives
- 9) Backup Exec version 12.5 supports Linux based media servers.

## Archiving Solution Partners

### Software Partners <sup>1</sup>

Application	Feature	Link to Product Page	Hardware Compatibility List
<b>Atempo Time Navigator</b>	Advanced protection and archival solution	<a href="#">Click Here</a>	<a href="#">Click Here</a>
<b>Front Porch Digital DIVArchive</b>	Content Storage Management system for digital media	<a href="#">Click Here</a>	
<b>Qstar HSM</b>	Provides data archive functionality and automigration	<a href="#">Click Here</a>	<a href="#">Click Here</a>
<b>Quantum StorNext</b>	High Performance Workflow and Intelligent Archiving	<a href="#">Click Here</a>	<a href="#">Click Here</a>
<b>SGL FlashNet</b>	Content storage and archive management	<a href="#">Click Here</a>	
<b>XenData Archive Series</b>	Powerful, scalable digital archives	<a href="#">Click Here</a>	<a href="#">Click Here</a>

### Hardware Partners <sup>1</sup>

Product	Feature	Link to Product Page	Hardware Compatibility List
<b>Intradyn ComplianceVault</b>	Email Archiving & Retrieval Appliance	<a href="#">Click Here</a>	
<b>QSM Data Director</b>	Real-time file system replication to protect archive data	<a href="#">Click Here</a>	<a href="#">Click Here</a>
<b>Crossroads ReadVerify Appliance</b>	Monitors and verifies readability of data written to tape	<a href="#">Click Here</a>	

1) See "[How To Use This Document](#)" for description of support.

# HP StorageWorks EBS Compatibility Matrix

## Libraries and Interface Controllers

DAF and SAN Support		e2400-FC 4Gb (FC-FC)	e2400-FC 2Gb (FC-FC)	e2400-160 (FC-SCSI)	Native FC Connection	e1200-320 4Gb (FC-SCSI)	NSR E1200-160	NSR N1200-320 4Gb
<b>ESL E-Series</b>								
Ultrium 1840	(LTO-4 FC)				✓			
Ultrium 960	(LTO-3 FC)	✓	✓					
Ultrium 460	(LTO-2 FC)	✓	✓					
SDLT600	(SCSI)			✓				
ESL E-Series Cross Link		✓	✓	✓				
Interface Manager		✓	✓	✓				
<b>EML E-Series</b>								
Ultrium 1840	(LTO-4 FC)				✓			
Ultrium 960	(LTO-3 FC)	✓	✓					
<b>MSL G3 (8096, 4048, 2024)</b>								
Ultrium 1840 <sup>1</sup>	(LTO-4 FC)				✓			
Ultrium 1840	(LTO-4 SCSI)							✓
Ultrium 1760	(LTO-4 SCSI HH)							✓
Ultrium 960 <sup>1</sup>	(LTO-3 4Gb FC)				✓			
Ultrium 960 <sup>1</sup>	(LTO-3 FC)				✓			
Ultrium 960	(LTO-3 SCSI)							✓
Ultrium 920	(LTO-3 SCSI HH)							✓
<b>MSL 6000 Series</b>								
Ultrium 1840	(LTO-4 SCSI)					✓	✓ <sup>2</sup>	
Ultrium 960	(LTO-3 SCSI)					✓	✓	
SDLT 600	(SCSI)					✓	✓	
MSL 6000 Multi-Unit Scalability						✓	✓	

**NOTES:**

1) Library is controlled through tape drive and does not have a physical connection.

2) Use the e1200-320 4Gb FC interface controller for best performance. The e1200-160 is still supported, but performance will be limited.



# HP StorageWorks EBS Compatibility Matrix

## Interface Controller Firmware

Interface Manager Firmware Required Minimum Components	I182	I200	I220	I230 <sup>1</sup>	I231 <sup>1</sup>	I232 <sup>1</sup>
e2400-FC 4Gb Interface Controller (FC-FC)	5.9.28	5.9.28	5.9.29	5.9.36	5.9.3d	5.9.44
e2400-FC 2Gb Interface Controller (FC-FC)	5.9.28	5.9.28	5.9.29	5.9.36	5.9.3d	5.9.44
e2400-160 Interface Controller (FC-SCSI)	5.9.28	5.9.28	5.9.29	5.9.36	5.9.3d	5.9.44
NSR E1200-160	5.9.28	5.9.28	5.9.29	5.9.36	5.9.3d	5.9.44
ESL E-Series		5.10	6.00	6.20	6.22	6.23
EML E-Series		1126	1200	1222	1222	1223
JAVA Run Time	1.4.2	1.4.2	1.4.2	1.4.2	1.4.2	1.4.2
Command View TL	1.8.00 or 2.0.00	2.0.00	2.2.00	2.3.00	2.3.01	2.3.02

Interface Controller Firmware (Non-Interface Manager)	
e1200-320 4Gb (MSL6000)	5.9.44
N1200-320 4Gb	5.9.44

### NOTES:

1) HP Secure Key Manager (SKM) requires ESL-e LTO4 drive firmware version H36W or later and EML-e LTO4 drive firmware version H36S or later and that the client tape libraries and Interface Controllers use firmware package I232 or later.

# HP StorageWorks EBS Compatibility Matrix

## HP-UX (PA-RISC) <sup>6</sup>

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
HP-UX 11.11 (11i v1)	HWE & QPK bundles, Jun 2008		HWE & QPK bundles, Dec 2007	HWE & QPK bundles, Dec 2004		HWE & QPK bundles, Dec 2007
HP-UX 11.23 (11i v2)	HWE & QPK bundles, Jun 2008		HWE & QPK bundles, Dec 2007	HWE & QPK bundles, Jun 2008		HWE & QPK bundles, Jun 2008
HP-UX 11.31 (11i v3)	HWE & QPK bundles, Sep 2008		HWE & QPK bundles, Sep 2008 <sup>7</sup>	HWE & QPK bundles, Sep 2008		HWE & QPK bundles, Sep 2008
<b>Servers</b>						
HP 9000 Superdome and Mid-Range (rp7000-rp8000 Series, PA-RISC)	✓		✓	✓		✓
HP 9000 Entry-Level (rp2000-rp5000 Series, PA-RISC)	✓		✓	✓		✓
HP A, L, N, and V Class (PA-RISC)	✓		✓	✓		✓
HP R Class (PA-RISC) <sup>3</sup>	✓		✓	✓		✓
<b>4Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>						
<b>AD193A / AD194A (4G, PCI-X 2.0, Combo Card)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>AB379A / AB379B (4G, PCI-X 2.0)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>AB378A / AB378B (4G, PCI-X 2.0)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>2Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>						
<b>AB465A (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A9782 (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A9784 (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A6826A (2G, PCI-X)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A6795A (2G, PCI)</b>						
td Driver	Native		Native	Native		Native
<b>SCSI Host Bus Adapters <sup>8</sup></b>						
<b>A7173A (Ultra320, PCI-X, 2 channel)</b>						
	Native		Native	Native		Native
<b>AB290A (Ultra320, PCI-X, 2 channel, Combo Card)</b>						
	Native		Native	Native		Native
<b>Disk Array Multipath Support <sup>5</sup></b>						
Native Multi-pathing (11i v3)	✓		✓	✓		✓
Secure Path for HP-UX (11i v2, 11i v1)	3.0F SP3		3.0F SP2 patch 2	3.0F SP3		3.0F SP2 patch 2
<b>High Availability <sup>4</sup></b>						
MC/ServiceGuard	✓ <sup>3</sup>		✓ <sup>3</sup>			

### NOTES:

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) ATS is not supported.
- 4) Refer to the [EBS Design Guide](#) for details on failover configurations. For O/S's not listed, please refer to the ISV's web page for supported HA configurations.

- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 6) For Boot from Tape support, [click here](#), and select the type of tape for compatibility.
- 7) The HP-UX 11.31 PHKL\_36312 patch is required to support the NetWorker 7.4 CDI driver.
- 8) Refer to server QuickSpecs to determine which HBAs are supported

# HP StorageWorks EBS Compatibility Matrix

## HP-UX (Integrity)<sup>5</sup>

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>9</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems<sup>2</sup></b>						
HP-UX 11.23 (11i v2)	HWE & QPK bundles, Jun 2008		HWE & QPK bundles, Dec 2007	HWE & QPK bundles, Jun 2008		HWE & QPK bundles, Jun 2008
HP-UX 11.31 (11i v3)	HWE & QPK bundles, Sep 2008		HWE & QPK bundles, Sep 2008 <sup>7</sup>	HWE & QPK bundles, Sep 2008		HWE & QPK bundles, Sep 2008
<b>Servers</b>						
HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)	✓		✓	✓		✓
HP Integrity Entry - Level (rx1000-rx6000 Series, Integrity)	✓		✓	✓		✓
HP ProLiant c-Class BladeSystem	✓		✓	✓		✓
<b>4Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>						
<b>AD299A / AD355A (4G, PCIe)<sup>8</sup></b>						
FW	2.70X5		2.70X5	2.70X5		2.70X5
fclp Driver	Native <sup>8</sup>		Native <sup>8</sup>	Native <sup>8</sup>		Native <sup>8</sup>
<b>AD300A / QLogic QLE2462 (4G, PCIe)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>AD221A / AD222A / AD393A (4G, PCIe, Combo Card)</b>						
FW	2.72A2		2.72A2	2.72A2		2.72A2
fclp Driver	Native <sup>8</sup>		Native <sup>8</sup>	Native <sup>8</sup>		Native <sup>8</sup>
<b>AD193A / AD194A (4G, PCI-X 2.0, Combo Card)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>AB379A / AB379B (4G, PCI-X 2.0)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>AB378A / AB378B (4G, PCI-X 2.0)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>4Gb Fibre Channel HP c-Class BladeSystem Host Bus Adapters<sup>4</sup></b>						
<b>QMH2462 (4G, PCIe) for HP c-Class BladeSystem (403619-B21)</b>						
FW	4.00.90		4.00.90	4.00.90		4.00.90
fcd Driver	Native		Native	Native		Native
<b>LPe1105 (4G, PCIe) for HP c-Class BladeSystem (403621-B21)<sup>8,1</sup></b>						
FW	2.72A2		2.72A2	2.72A2		2.72A2
fclp Driver	Native <sup>8,1</sup>		Native <sup>8,1</sup>	Native <sup>8,1</sup>		Native <sup>8,1</sup>
<b>2Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>						
<b>AB465A (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A9782 (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A9784 (2G, PCI-X, Combo Card)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A6826A (2G, PCI-X)</b>						
FW	3.003.154		3.003.154	3.003.154		3.003.154
fcd Driver	Native		Native	Native		Native
<b>A6795A (2G, PCI)</b>						
EFI	1.24		1.24	1.24		1.24
td Driver	Native		Native	Native		Native
<b>SAS Host Bus Adapters<sup>10</sup></b>						
<b>AH303A (HP SC44Ge, 3Gb, PCIe, 4 channel)<sup>1</sup></b>						
	Native		Native			Native
<b>SCSI Host Bus Adapters<sup>10</sup></b>						
<b>A7173A (Ultra320, PCI-X, 2 channel)</b>						
	Native		Native	Native		Native
<b>AB290A (Ultra320, PCI-X, 2 channel, Combo Card)</b>						
	Native		Native	Native		Native
<b>Disk Array Multipath Support<sup>4</sup></b>						
Native Multi-pathing (11i v3)						
Secure Path for HP-UX (11i v2, 11i v1)	3.0F SP3		3.0F SP2 patch 2	3.0F SP3		3.0F SP2 patch 2
<b>High Availability<sup>6</sup></b>						
MC/ServiceGuard	✓ <sup>3</sup>		✓ <sup>3</sup>			

### NOTES:

1) Supported with HP-UX 11i v3 0803 or later.

2) Please reference your ISV support matrices for supported application and operating system version compatibility.

3) ATS is not supported.

4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

5) For Boot from Tape support, [click here](#), and select the type of tape for compatibility.

6) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

7) The HPUX 11.31 PHKL\_36312 patch is required to support the NetWorker 7.4 CDI driver

8) Requires FibrChanI02 driver

9) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients

10) Refer to server QuickSpecs to determine which HBAs are supported

# HP StorageWorks EBS Compatibility Matrix

Windows (x86) (page 1 of 3)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
Windows Server 2003 Release 2 (32-bit)	sp2	sp2	sp2	sp2	sp2	sp2
Windows Server 2008 (32-bit)	✓	✓	✓	✓	✓	
<b>Servers</b>						
HP ProLiant	✓	✓	✓	✓	✓	✓
HP ProLiant c-Class BladeSystem	✓	✓	✓	✓	✓	✓
HP ProLiant p-Class BladeSystem	✓	✓	✓	✓	✓	✓
Third Party X86	✓	✓	✓	✓	✓	✓
<b>8Gb Fibre Channel Host Bus Adapters <sup>1,5</sup> (HP Branded / 3rd Party)</b>						
<b>AK344Ab QLogic QLE2560 (8G, PCIe) &amp; AJ764A / QLogic QLE2562 (8G, PCIe)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 StorPort Driver	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	
<b>81E / Emulex LPe12000 (8G, PCIe) &amp; 82E / Emulex LPe12002 (8G, PCIe)</b>						
FW	1.00a12	1.00a12		1.00a12	1.00a12	1.00a12
WIN 2003 StorPort Driver		5-2.01a4		5-2.01a4	5-2.01a4	5-2.01a4
WIN 2008 StorPort Driver	5-2.01a4	5-2.01a4		5-2.01a4	5-2.01a4	
<b>4Gb Fibre Channel Host Bus Adapters <sup>1,5</sup> (HP Branded / 3rd Party)</b>						
<b>FC2142SR / Emulex LPe1150 (4G, PCIe) &amp; FC2242SR DC / Emulex LPe11002 (4G, PCIe)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>3,4</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	5-2.01a4
WIN 2008 StorPort Driver <sup>4,6</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	
<b>FC1142SR / QLogic QLE2460 (4G, PCIe) &amp; FC1242SR DC / QLogic QLE2462 (4G, PCIe)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 SCSIport Driver	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11
WIN 2003 StorPort Driver <sup>3,4</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver <sup>4,6</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	
<b>FC2143 / Emulex LP1150 (4G, PCI-X 2.0) &amp; FC2243 / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>3,4</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	5-2.01a4
WIN 2008 StorPort Driver <sup>4,6</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	
<b>FC1143 / QLogic QLA2460 (4G, PCI-X 2.0) &amp; FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 SCSIport Driver	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11
WIN 2003 StorPort Driver <sup>3,4</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver <sup>4,6</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	
<b>4Gb Fibre Channel HP c-Class BladeSystem Host Bus Adapters <sup>5</sup></b>						
<b>LPe1105 (4G, PCIe) for HP c-Class BladeSystem</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>3,4</sup>	5-2.00a12	5-2.00a12	5-2.00a12	5-2.01a4	5-2.00a12	5-2.00a12
WIN 2008 StorPort Driver <sup>4,6</sup>	5-2.00a12	5-2.00a12	5-2.00a12	5-2.01a4	5-2.00a12	
<b>QMH2462 (4G, PCIe) for HP c-Class BladeSystem</b>						
BIOS	1.26	1.26	1.26	1.26	1.26	1.26
WIN 2003 SCSIport Driver	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11
WIN 2003 StorPort Driver <sup>3,4</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18
WIN 2008 StorPort Driver <sup>4,6</sup>	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	

**NOTES:**

- 1) 3rd Party adapters require HP drivers and firmware.
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB891793 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB945119.

- 4) Please reference ISV application installation/support documents for specific driver and patch requirements
- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 6) Systems running Tivoli with WS2008 require Storport.sys KB953390.

# HP StorageWorks EBS Compatibility Matrix

Windows (x86) (page 2 of 3)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>2Gb Fibre Channel Host Bus Adapters <sup>1,2</sup> (HP Branded / 3rd Party)</b>						
<b>A7560A</b> / Emulex <b>LP1050EX</b> (2G, PCI-X)						
<b>A7388A</b> / Emulex <b>LP1050</b> (2G, PCI-X)						
<b>A7387A</b> / Emulex <b>LP1050DC</b> (2G, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>5,6</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	5-2.01a4
WIN 2008 StorPort Driver <sup>6,10</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	
<b>FCA2408</b> / Emulex <b>LP982</b> (2G, PCI-X)						
<b>FCA2404</b> / Emulex <b>LP9802</b> (2G, PCI-X)						
<b>FCA2404DC</b> / Emulex <b>LP9802DC</b> (2G, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>5,6</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	5-2.01a4
WIN 2008 StorPort Driver <sup>6,10</sup>	5-2.01a4	5-2.01a4	5-2.00a12	5-2.01a4	5-2.01a4	
<b>FCA2214</b> / QLogic <b>QLA2340</b> (2G, PCI-X)						
<b>FCA2214DC</b> / QLogic <b>QLA2342</b> (2G, PCI-X)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2003 SCSIport Driver	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11
WIN 2003 StorPort Driver <sup>5,6</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver <sup>6,10</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	
<b>2Gb Fibre Channel HP p-Class BladeSystem Host Bus Adapters</b>						
Emulex <b>Mezzanine Card for p-Class Blades</b> (2G, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5
WIN 2003 SCSIport Driver	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2	5-5.30a2
WIN 2003 StorPort Driver <sup>5,6</sup>	5-2.00a12	5-2.00a12	5-2.00a12	5-2.00a12	5-2.00a12	5-2.00a12
WIN 2008 StorPort Driver <sup>6,10</sup>	5-2.00a12	5-2.00a12	5-2.00a12	5-2.00a12	5-2.00a12	
QLogic <b>Balcony Card for p-Class Blades</b> (2G, PCI-X)						
QLogic <b>Mezzanine Card for p-Class Blades</b> (2G, PCI-X)						
FW (BL25p)	1.48	1.48	1.48	1.48	1.48	1.48
FW (BL20p, BL30p, and BL35p)	1.48	1.48	1.48	1.48	1.48	1.48
WIN 2003 SCSIport Driver	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11	9.1.3.11
WIN 2003 StorPort Driver <sup>5,6</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18
WIN 2008 StorPort Driver <sup>6,10</sup>	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	
<b>SAS Host Bus Adapters and Controllers</b>						
<b>P212, P410, P411 &amp; P700</b> (3Gb, PCIe, 8 channel)	✓	✓	✓		✓	✓
<b>SC44Ge</b> (3Gb, PCIe, 4 channel) <sup>3,8,9</sup>	✓	✓	✓		✓	✓
<b>SCSI Host Bus Adapters <sup>8,9</sup></b>						
<b>AH627A</b> (HP U320e, Ultra320, PCIe, 2 channel)	✓	✓	✓	✓	✓	✓
<b>412911-B21</b> (HP SC11Xe, Ultra320, PCIe, 1 channel)	✓	✓	✓	✓	✓	✓
<b>374654-B21</b> (Ultra320, PCI-X, 1 channel)	✓	✓	✓	✓	✓	✓
<b>SCSI - Third Party HBAs and Integrated Controllers <sup>4,7</sup></b>						
Adaptec <b>29320ALP-R</b> (Ultra320, PCI-X, 1 channel)	✓	✓	✓	✓	✓	✓
ATTOTech <b>UL4D</b> (Ultra320, PCI-X, 2 channel)	✓	✓	✓	✓	✓	✓
ATTOTech <b>UL5D</b> (Ultra320, PCIe, 2 channel)	✓	✓	✓	✓	✓	✓

**NOTES:**

1) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

2) 3rd Party adapters require HP drivers and firmware.

3) SC44Ge (416096-B21) is supported in the PCI Expansion Blade (448018-B21).

4) Third Party SCSI HBA support is for HP servers only.

5) All sp2 systems are required to run Storport.sys KB945119. Non-sp2 systems running applications other than TSM require Storport.sys KB891793 (min) or KB916048 (recommended); systems running TSM require Storport.sys KB901371

6) Please reference ISV application installation/support documents for specific driver and patch requirements.

7) See vendor website for additional details.

8) Refer to server QuickSpecs to determine which HBAs are supported.

9) Third party x86 servers supported with HP-branded adapters only.

10) Systems running TSM on WS2008 require Storport.sys KB953390.

# HP StorageWorks EBS Compatibility Matrix

Windows (x86) (page 3 of 3)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Disk Array Multipath Support <sup>1</sup></b>						
Windows MPIO <sup>5</sup>	✓	✓	✓	✓	✓	✓
<b>High Availability <sup>2</sup></b>						
Windows (MSCS)	✓	✓	✓	✓ <sup>3</sup>	✓ <sup>4</sup>	✓

**NOTES:**

1) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

2) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

3) Not supported with TSM 5.3.x or later.

4) Support includes NAS9000 and NAS4000 platforms.

5) Windows Full-Feature MPIO failover support. Clusters sharing disk and tape on the same HBA require StorPort.

# HP StorageWorks EBS Compatibility Matrix

## Windows (Integrity)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
Windows Server 2003 (64-bit)	sp2	sp2	sp2	sp2		sp2
Windows Server 2008 (64-bit)	✓	✓		✓		
<b>Servers</b>						
HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)	✓	✓	✓	✓		✓
HP ProLiant c-Class BladeSystem	✓	✓	✓	✓		✓
<b>8Gb Fibre Channel Host Bus Adapters <sup>1,4</sup> (HP Branded / 3rd Party)</b>						
<b>AH402A / Emulex LPe12000 (8G, PCI-e) &amp; AH403A / Emulex LPe12002 (8G, PCI-e)</b>						
FW						1.00a12
WIN 2003 StorPort Driver <sup>5,7</sup>						6-2.01a4
<b>4Gb Fibre Channel Host Bus Adapters <sup>1,4</sup> (HP Branded / 3rd Party)</b>						
<b>LPe1105 (4G, PCI-e) for HP c-Class BladeSystem</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6-2.01a4	6-2.01a4	6-2.01a4	6-2.01a4		6-2.01a4
WIN 2008 StorPort Driver <sup>5,9</sup>	6-2.01a4	6-2.01a4		6-2.01a4		
<b>A8002A / Emulex LPe1150 (4G, PCI-e) &amp; A8003A / Emulex LPe11002 (4G, PCI-e)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6-2.01a4	6-2.01a4	6-2.01a4	6-2.01a4		6-2.01a4
WIN 2008 StorPort Driver <sup>5,9</sup>	6-2.01a4	6-2.01a4		6-2.01a4		
<b>AE311A / Qlogic QLE2460 (4G, PCI-e) &amp; AD300A / Qlogic QLE2462 (4G, PCI-e)</b>						
EFI	2.00	2.00	1.09	1.09		1.09
WIN 2003 StorPort Driver <sup>5,7</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18		9.1.3.18
WIN 2008 StorPort Driver <sup>5,9</sup>	9.1.7.17	9.1.7.17				
<b>AD167A / Emulex LP1150 (4G, PCI-X 2.0) &amp; AD168A / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2		2.72a2
WIN 2003 SCSIport Driver	6-5.30a2	6-5.30a2	6-5.30a2	6-5.30a2		6-5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6-2.01a4	6-2.01a4	6-2.01a4	6-2.01a4		6-2.01a4
WIN 2008 StorPort Driver <sup>5,9</sup>	6-2.01a4	6-2.01a4		6-2.01a4		
<b>AB429A / Qlogic QLA2460 (4G, PCI-X 2.0) &amp; AB379A/B / Qlogic QLA2462 (4G, PCI-X 2.0)</b>						
EFI	2.00	2.00	1.09	1.09		1.09
WIN 2003 StorPort Driver <sup>5,7</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18		9.1.3.18
WIN 2008 StorPort Driver <sup>5,9</sup>	9.1.7.17	9.1.7.17				
<b>2Gb Fibre Channel Host Bus Adapters <sup>1,4</sup> (HP Branded / 3rd Party)</b>						
<b>AB232A / Emulex LP9802 (2G, PCI-X), AB467A / Emulex LP1050 (2G, PCI-X) &amp; AB466A / Emulex LP1050DC (2G, PCI-X)</b>						
FW	1.91a5	1.91a5	1.91a5	1.91a5		1.91a5
WIN 2003 SCSIport Driver	6-5.30a2	6-5.30a2	6-5.30a2	6-5.30a2		6-5.30a2
WIN 2003 StorPort Driver <sup>5,7</sup>	6-2.01a4	6-2.01a4	6-2.01a4	6-2.01a4		6-2.01a4
WIN 2008 StorPort Driver <sup>5,9</sup>	6-2.01a4	6-2.01a4		6-2.01a4		
<b>SCSI Host Bus Adapters <sup>8</sup></b>						
<b>A7173A</b> (Ultra320, PCI-X, 2 channel)	✓	✓	✓	✓		✓
<b>Disk Array Multipath Support <sup>4</sup></b>						
Windows MPIO 6	✓	✓	✓	✓		✓
<b>High Availability <sup>3</sup></b>						
Windows (MSCS)	✓	✓	✓	✓		✓

### NOTES:

- 1) 3rd Party adapters require HP drivers and firmware.
- 2) Please reference ISV support matrices for supported application and OS version compatibility.
- 3) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

- 4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 5) Please reference ISV application documents for specific driver and patch requirements.
- 6) Windows Full-Feature MPIO failover support. Clusters sharing disk and tape on the same HBA require StorPort.

- 7) All sp2 systems require Storport.sys KB945119. Non-sp2 systems running applications other than TSM require Storport.sys KB891793 (min) or KB916048 (recommended) while systems running TSM require Storport.sys KB901371
- 8) Refer to server QuickSpecs to determine which HBAs are supported
- 9) Systems running Tivoli with WS2008 requires Storport.sys KB953390.

# HP StorageWorks EBS Compatibility Matrix

Windows (x64) (page 1 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
Windows Server 2003 x64 Edition	sp2	sp2	sp2	sp2	sp2	sp2
Windows Server 2003 R2 x64 Edition	sp2	sp2	sp2	sp2	sp2	sp2
Windows Server 2008 x64 Edition	✓	✓	✓	✓	✓	✓
<b>Servers</b>						
HP ProLiant	✓	✓	✓	✓	✓	✓
HP ProLiant c-Class BladeSystem	✓	✓	✓	✓	✓	✓
HP ProLiant p-Class BladeSystem	✓	✓	✓	✓	✓	✓
<b>8Gb Fibre Channel Host Bus Adapters <sup>4,5</sup> (HP Branded / 3rd Party)</b>						
<b>AK344A / QLogic QLE2560 (8G, PCI-e)</b>						
<b>AJ764A / QLogic QLE2562 (8G, PCI-e)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 StorPort Driver	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	
<b>81E / Emulex LPe12000 (8G, PCI-e)</b>						
<b>82E / Emulex LPe12002 (8G, PCI-e)</b>						
FW	1.00a12	1.00a12		1.00a12	1.00a12	1.00a12
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.01a4	7-2.01a4		7-2.01a4	7-2.01a4	7-2.01a4
WIN 2008 StorPort Driver <sup>1,7</sup>	7-2.01a4	7-2.01a4		7-2.01a4	7-2.01a4	7-2.01a4
<b>4Gb Fibre Channel Host Bus Adapters <sup>4,5</sup> (HP Branded / 3rd Party)</b>						
<b>FC2142SR / Emulex LPe1150 (4G, PCI-e)</b>						
<b>FC2242SR DC / Emulex LPe11002 (4G, PCI-e)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
WIN 2008 StorPort Driver <sup>1,7</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
<b>FC1142SR / QLogic QLE2460 (4G, PCI-e)</b>						
<b>FC1242SR DC / QLogic QLE2462 (4G, PCI-e)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 StorPort Driver <sup>1,6</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver <sup>1,7</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
<b>FC2143 / Emulex LP1150 (4G, PCI-X 2.0)</b>						
<b>FC2243 / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
WIN 2008 StorPort Driver <sup>1,7</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
<b>FC1143 / QLogic QLA2460 (4G, PCI-X 2.0)</b>						
<b>FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)</b>						
BIOS	2.02	2.02	2.02	2.02	2.02	2.02
WIN 2003 StorPort Driver <sup>1,6</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
WIN 2008 StorPort Driver <sup>1,7</sup>	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17	9.1.7.17
<b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters <sup>4</sup></b>						
<b>LPe1105 (4G, PCI-e) for HP c-Class BladeSystem</b>						
FW	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2	2.72a2
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12
WIN 2008 StorPort Driver <sup>1,7</sup>	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12	7-2.00a12
<b>QMH2462 (4G, PCI-e) for HP c-Class BladeSystem</b>						
BIOS	1.26	1.26	1.26	1.26	1.26	1.26
WIN 2003 StorPort Driver <sup>1,6</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18
WIN 2008 StorPort Driver <sup>1,7</sup>	9.1.3.18	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15

**NOTES:**

- 1) Please reference ISV application installation/support documents for specific driver and patch requirements.
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

- 4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 5) 3rd Party adapters require HP drivers and firmware.
- 6) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB903081 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB945119.
- 7) Systems running Tivoli with WS2008 require Storport.sys KB953390.



# HP StorageWorks EBS Compatibility Matrix

Windows (x64) (page 2 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>2Gb Fibre Channel Host Bus Adapters <sup>4,5</sup> (HP Branded / 3rd Party)</b>						
<b>7560A</b> / Emulex <b>LP1050EX</b> (2G, PCI-X)						
<b>A7388A</b> / Emulex <b>LP1050</b> (2G, PCI-X)						
<b>A7387A</b> / Emulex <b>LP1050DC</b> (2G, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
WIN 2008 StorPort Driver <sup>1,10</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
<b>FCA2408</b> / Emulex <b>LP982</b> (2G, PCI-X)						
<b>FCA2404</b> / Emulex <b>LP9802</b> (2G, PCI-X)						
<b>FCA2404DC</b> / Emulex <b>LP9802DC</b> (2G, PCI-X)						
FW	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5	1.91a5
WIN 2003 StorPort Driver <sup>1,6</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
WIN 2008 StorPort Driver <sup>1,10</sup>	7-2.01a4	7-2.01a4	7-2.00a12	7-2.01a4	7-2.01a4	7-2.01a4
<b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters <sup>4</sup></b>						
<b>QLogic Balcony Card for p-Class Blades</b> (2G, PCI-X)						
<b>QLogic Mezzanine Card for p-Class Blades</b> (2G, PCI-X)						
FW (BL25p)	1.48	1.48	1.48	1.48	1.48	1.48
FW (BL20p, BL30p, and BL35p)	1.48	1.48	1.48	1.48	1.48	1.48
WIN 2003 StorPort Driver <sup>1,6</sup>	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18	9.1.3.18
WIN 2008 StorPort Driver <sup>1,10</sup>	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15	9.1.6.15
<b>SAS Host Bus Adapters and Controllers</b>						
<b>P212, P410, P411 &amp; P700</b> (3Gb, PCIe, 8 channel)	✓	✓	✓		✓	✓
<b>SC44Ge</b> (3Gb, PCIe, 4 channel) <sup>8,9,11</sup>	✓	✓	✓		✓	✓
<b>SCSI Host Bus Adapters and Controllers <sup>8,9</sup></b>						
<b>AH627A</b> (HP U320e, Ultra320, PCIe, 2 channel)	✓	✓	✓	✓	✓	✓
<b>412911-B21</b> (HP SC11Xe, Ultra320, PCIe, 1 channel)	✓	✓	✓	✓	✓	✓
<b>374654-B21</b> (Ultra320, PCI-X, 1 channel)	✓	✓	✓	✓	✓	✓
<b>SCSI - Third Party HBAs and Integrated Controllers <sup>7,12</sup></b>						
Adaptec <b>29320ALP-R</b> (Ultra320, PCI-X, 1 channel)	✓	✓	✓	✓	✓	✓
ATTOTech <b>UL4D</b> (Ultra320, PCI-X, 2 channel)	✓	✓	✓	✓	✓	✓
ATTOTech <b>UL5D</b> (Ultra320, PCIe, 2 channel)	✓	✓	✓	✓	✓	✓
<b>Disk Array Multipath Support <sup>4</sup></b>						
Windows MPIO	✓	✓	✓	✓	✓	✓
<b>High Availability <sup>3</sup></b>						
Windows (MSCS)	✓	✓	✓	✓	✓	✓

**NOTES:**

- 1) Please reference ISV application installation/support documents for specific driver and patch requirements.
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.
- 4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 5) 3rd Party adapters require HP drivers and firmware.
- 6) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB903081 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB945119.
- 7) See vendor website for additional details.
- 8) Refer to server QuickSpecs to determine which HBAs are supported
- 9) Third party x86 servers supported with HP-branded adapters only
- 10) Systems running TSM on WS2008 require Storport.sys KB953390
- 11) SC44Ge (416096-B21) is supported in the PCI Expansion Blade (448018-B21)
- 12) Third Party SCSI HBA support is for HP servers only

# HP StorageWorks EBS Compatibility Matrix

Linux (x86) <sup>4,6</sup> (page 1 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
RHEL [AS/ES/WS] 4.0 (32-bit)	Update 7		Update 7	Update 7	Update 7	Update 7
RHEL [AS/ES/WS] 5.0 (32-bit)	Update 2		Update 2	ü	Update 2	
SUSE SLES 9 (32-bit)	SP4		SP4	SP4	SP4	SP4
SUSE SLES 10 (32-bit)	SP2		SP2	SP2	SP2	SP2
<b>Servers</b>						
HP ProLiant	✓		✓	✓	✓	✓
HP ProLiant c-Class BladeSystem	✓		✓	✓	✓	✓
HP ProLiant p-Class BladeSystem	✓		✓	✓	✓	✓
Third Party X86	✓		✓	✓	✓	✓
<b>8Gb Fibre Channel Host Bus Adapters <sup>3,5</sup> (HP Branded / 3rd Party)</b>						
<b>AK344A / QLogic QLE2560 (8G, PCI-e)</b>						
<b>AJ764A / QLogic QLE2562 (8G, PCI-e)</b>						
BIOS	2.02		2.02	2.00	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11		8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.02.03	8.02.11	8.02.11
<b>81E / Emulex LPe12000 (8G, PCI-e)</b>						
<b>82E / Emulex LPe12002 (8G, PCI-e)</b>						
FW	1.00a12		1.00a12	1.00a12	1.00a12	1.00a12
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40		8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1
<b>4Gb Fibre Channel Host Bus Adapters <sup>3,5</sup> (HP Branded / 3rd Party)</b>						
<b>FC2142SR / Emulex LPe1150 (4G, PCI-e)</b>						
<b>FC2242SR DC / Emulex LPe11002-M4 (4G, PCI-e)</b>						
FW	2.72a2		2.70a5	2.70a5	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.32	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.1.6.7	8.1.6.7	8.2.0.22_p1	8.2.0.22_p1
<b>FC1142SR / QLogic QLE2460 (4G, PCI-e)</b>						
<b>FC1242SR DC / QLogic QLE2462 (4G, PCI-e)</b>						
BIOS	2.02		2.02	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
<b>FC2143 / Emulex LP1150 (4G, PCI-X 2.0)</b>						
<b>FC2243 / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2		2.72a2	2.72a2	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.32	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1
<b>FC1143 / QLogic QLA2460 (4G, PCI-X 2.0)</b>						
<b>FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)</b>						
BIOS	2.02		1.26	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.01.07.25	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.01.07.25	8.01.07.25	8.02.11	8.02.11

**NOTES:**

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.

- 3) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 4) EBS is not dependent on specific kernel errata levels. For required/supported kernel errata, refer to your online storage array and backup application support documentation.

- 5) 3rd Party adapters require HP drivers and firmware.
- 6) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

# HP StorageWorks EBS Compatibility Matrix

Linux (x86) <sup>4,6</sup> (page 2 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters <sup>3,5</sup></b>						
<b>LPe1105</b> (4G, PCI-e) for HP c-Class BladeSystem						
FW	2.72a2		2.70a5	2.70a5	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.32	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.1.6.7	8.1.6.7	8.2.0.22_p1	8.2.0.22_p1
<b>QMH2462</b> (4G, PCI-e) for HP c-Class BladeSystem						
BIOS	1.26		1.26	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.02.11	8.02.11
<b>2Gb Fibre Channel Host Bus Adapters <sup>3,5</sup> (HP Branded / 3rd Party)</b>						
<b>FCA2214</b> / QLogic <b>2340</b> (2G, PCI-X)						
<b>FCA2214DC</b> / QLogic <b>2342</b> (2G, PCI-X)						
BIOS	1.45		1.45	1.45	1.45	1.45
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
<b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters <sup>3,5</sup></b>						
<b>Emulex Mezzanine Card for p-Class Blades</b> (2G, PCI-X)						
FW	1.91a5		1.91a5	1.91a5	1.91a5	1.91a5
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40	8.0.16.32	8.0.16.40	8.0.16.32
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.1.6.7	8.1.6.7
<b>QLogic Balcony Card for p-Class Blades</b> (2G, PCI-X)						
<b>QLogic Mezzanine Card for BL20p G2/G3</b> (2G, PCI-X)						
FW (BL25p)	1.48		1.48	1.48	1.48	1.48
FW (BL20p, BL30p, and BL35p)	1.48		1.48	1.48	1.48	1.48
RHEL 4.0 driver & SUSE SLES 9 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
<b>SAS Host Bus Adapters and Controllers</b>						
<b>P212, P410, P411 &amp; P700</b> (3Gb, PCI-e, 8 channel)	✓		✓		✓	✓
<b>SC44Ge</b> (3Gb, PCI-e, 4 channel) <sup>8,9,10</sup>	✓		✓		✓	✓
<b>SCSI Host Bus Adapters <sup>8,9</sup></b>						
<b>AH627A</b> (HP U320e, Ultra320, PCI-e, 2 channel)	✓		✓	✓		✓
<b>412911-B21</b> (HP SC11Xe, Ultra320, PCI-e, 1 channel)	✓		✓	✓		✓
<b>374654-B21</b> (Ultra320, PCI-X, 1 channel)	✓		✓	✓	✓	✓
<b>SCSI - Third Party HBAs and Integrated Controllers <sup>7,2</sup></b>						
Adaptec <b>29320ALP-R</b> (Ultra320, PCI-X, 1 channel)	✓		✓	✓	✓	✓
ATTOTech <b>UL4D</b> (Ultra320, PCI-X, 2 channel)	✓		✓	✓		✓
ATTOTech <b>UL5D</b> (Ultra320, PCI-e, 2 channel)	✓		✓	✓		✓
<b>Disk Array Multipath Support <sup>3</sup></b>						
Device Mapper	4.0.1		4.1.0	4.1.0	4.0.1	
Emulex Multipulse (2.6 kernels only)	2.1.9		2.1.9	2.1.9	2.2.20	2.2.20
QLogic Native Multi-Path for Linux (2.4 kernel)	7.07.05		7.07.05	7.07.05		7.07.05
QLogic Native Multi-Path for Linux (2.6 kernel)	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25

**NOTES:**

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Third Party SCSI HBA support is for HP servers only
- 3) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 4) EBS is not dependent on specific kernel errata levels. For required/supported kernel errata, refer to your online storage array and backup application support documentation.

- 5) 3rd Party adapters require HP drivers and firmware.
- 6) SP2 for SLES 9 is not supported.
- 7) See vendor website for additional details.
- 8) Refer to server QuickSpecs to determine HBA supported
- 9) Third party x86 servers supported with HP-branded adapters only
- 10) SC44Ge (416096-B21) is supported in the PCI Expansion Blade (448018-B21)

# HP StorageWorks EBS Compatibility Matrix

## Linux (Integrity)<sup>3,5</sup>

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems<sup>2</sup></b>						
RHEL [AS/ES/WS] 4.0 (64-bit)	Update 7		Update 7			Update 7
RHEL [AS/ES/WS] 5.0 (64-bit)	<b>Update 2</b>		Update 2			
SUSE SLES 9 (64-bit)	SP4		SP4			SP4
SUSE SLES 10 (64-bit)	<b>SP2</b>		SP2			SP1
<b>Servers</b>						
HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)	✓		✓			✓
HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)	✓		✓			✓
HP ProLiant c-Class BladeSystem	✓		✓			✓
<b>4Gb Fibre Channel Host Bus Adapters<sup>4</sup> (HP Branded / 3rd Party)</b>						
<b>A8002A / Emulex LPe11000 (4G, PCI-e)</b>						
<b>A8003A / Emulex LPe11002 (4G, PCI-e)</b>						
FW	2.72a2					2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40					8.0.16.32
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1					
<b>AE311A / QLogic QLE2460 (4G, PCI-e)</b>						
<b>AD300A / QLogic QLE2462 (4G, PCI-e)</b>						
EFI	2.00		1.09			1.09
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11					
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.01.07.25			8.01.07.25
<b>AD167A / Emulex LP1150 (4G, PCI-X 2.0)</b>						
<b>AD168A / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2		2.72a2			2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.27			8.0.16.32
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.1.6.7			8.1.6.7
<b>AB429A / QLogic QLA2460 (4G, PCI-X 2.0)</b>						
<b>AB379A/AB379B / QLogic QLA2462 (4G, PCI-X 2.0)</b>						
EFI	2.00		1.09			1.09
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.01.07.25			8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.01.07.25			8.01.07.25
<b>QMH2462 (4G, PCI-e) for HPC-Class BladeSystem</b>						
EFI	1.09		1.09			1.09
RHEL 5.0 driver & SUSE SLES 10 driver	8.01.07.25		8.01.07.25			8.01.07.25
<b>2Gb Fibre Channel Host Bus Adapters<sup>4</sup> (HP Branded / 3rd Party)</b>						
<b>A7538A / Qlogic QLA2340 (2G, PCI-X)</b>						
<b>A6826A / Qlogic QLA2342 (2G, PCI-X)</b>						
BIOS	1.50		1.49			1.49
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.01.07.25			8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.01.07.25			8.01.07.25
<b>SAS Host Bus Adapters<sup>6</sup></b>						
<b>SC44Ge (3Gb, PCIe, 4 channel)</b>						
	✓		✓			✓
<b>SCSI Host Bus Adapters<sup>6</sup></b>						
<b>A7173A (Ultra320, PCI-X, 2 channel)</b>						
	✓		✓			✓
<b>Disk Array Multipath Support<sup>4</sup></b>						
Device Mapper	4.0.1					
Emulex Multipulse (2.6 kernels only)	2.1.9		2.1.9			2.2.20
QLogic Native Multi-Path for Linux (2.4 kernel)	7.07.05		7.07.05			7.07.05
QLogic Native Multi-Path for Linux (2.6 kernel)	8.01.07.25		8.01.07.25			8.01.07.25

### NOTES:

1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients

2) Please reference your ISV support matrices for supported application and operating system version compatibility.

3) EBS is not dependent on specific kernel errata levels. For required/supported kernel errata, refer to your online storage array and backup application support documentation.

4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

5) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

6) Refer to server QuickSpecs to determine which HBAs are supported

# HP StorageWorks EBS Compatibility Matrix

Linux (x64)<sup>4,6</sup> (page 1 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems<sup>2</sup></b>						
RHEL [AS/ES/WS] 4.0 (x64)	Update 7		Update 7	Update 7	Update 7	Update 7
RHEL [AS/ES/WS] 5.0 (x64)	Update 2		Update 2	✓	Update 2	Update 2
SUSE SLES 9 (x64)	Update 4		Update 4	Update 4	SP4	Update 4
SUSE SLES 10 (x64)	SP2		SP2	SP2	SP1	SP1
<b>Servers</b>						
HP ProLiant	✓		✓	✓	✓	✓
HP ProLiant c-Class BladeSystem	✓		✓	✓	✓	✓
HP ProLiant p-Class BladeSystem	✓		✓	✓	✓	✓
HP NetServer	✓		✓	✓	✓	✓
Third Party X86	✓		✓	✓	✓	✓
<b>8Gb Fibre Channel Host Bus Adapters<sup>3,5</sup> (HP Branded / 3rd Party)</b>						
<b>AK344A / QLogic QLE2560 (8G, PCI-e)</b>						
<b>AJ764A / QLogic QLE2562 (8G, PCI-e)</b>						
BIOS	2.02		2.02	2.00	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11		8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.02.03	8.02.11	8.02.11
<b>81E / Emulex LPe12000 (8G, PCI-e)</b>						
<b>82E / Emulex LPe12002 (8G, PCI-e)</b>						
FW	1.00a12		1.00a12	1.00a12	1.00a12	1.00a12
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40		8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1
<b>4Gb Fibre Channel Host Bus Adapters<sup>3,5</sup> (HP Branded / 3rd Party)</b>						
<b>FC21425R / Emulex LPe1150 (4G, PCI-e)</b>						
<b>FC22425R DC / Emulex LPe11002-M4 (4G, PCI-e)</b>						
FW	2.72a2		2.72a2	2.72a2	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1	8.2.0.22_p1
<b>FC11425R / QLogic QLE2460 (4G, PCI-e)</b>						
<b>FC12425R DC / QLogic QLE2462 (4G, PCI-e)</b>						
BIOS	2.02		2.02	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
<b>FC2143 / Emulex LP1150 (4G, PCI-X 2.0)</b>						
<b>FC2243 / Emulex LP11002 (4G, PCI-X 2.0)</b>						
FW	2.72a2		2.70a5	2.70a5	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.1.6.7	8.1.6.7	8.2.0.22_p1	8.2.0.22_p1
<b>FC1143 / QLogic QLA2460 (4G, PCI-X 2.0)</b>						
<b>FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)</b>						
BIOS	2.02		1.26	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.01.07.25	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.01.07.25	8.01.07.25	8.02.11	8.02.11

**NOTES:**

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 4) EBS is not dependent on specific kernel errata levels. For required/supported kernel errata, refer to your online storage array and backup application support documentation.

- 5) 3rd Party adapters require HP drivers and firmware.
- 6) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

# HP StorageWorks EBS Compatibility Matrix

Linux (x64)<sup>4,5</sup> (page 2 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters<sup>3</sup></b>						
<b>LPe1105</b> (4G, PCI-e) for HP c-Class BladeSystem						
FW	2.72a2		2.70a5	2.70a5	2.72a2	2.72a2
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.40	8.0.16.32	8.0.16.40	8.0.16.40
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.1.6.7	8.1.6.7	8.2.2.0.22_p1	8.2.2.0.22_p1
<b>QMH2462</b> (4G, PCI-e) for HP c-Class BladeSystem						
BIOS	1.26		1.26	1.26	2.02	2.02
RHEL 4.0 driver & SUSE SLES 9 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.02.11	8.02.11
<b>2Gb Fibre Channel Host Bus Adapters<sup>3,6</sup> (HP Branded / 3rd Party)</b>						
<b>FCA2214</b> / QLogic <b>2340</b> (2G, PCI-X) and <b>FCA2214DC</b> / QLogic <b>2342</b> (2G, PCI-X)						
BIOS	1.45		1.45	1.45	1.45	1.45
RHEL 4.0 driver & SUSE SLES 9 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
RHEL 5.0 driver & SUSE SLES 10 driver	8.02.11		8.02.11	8.01.07.25	8.02.11	8.02.11
<b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters<sup>3</sup></b>						
Emulex <b>Mezzanine Card for p-Class Blades</b> (2G, PCI-X)						
FW	1.91a5		1.91a5	1.91a5	1.91a5	1.91a5
RHEL 4.0 driver & SUSE SLES 9 driver	8.0.16.40		8.0.16.32	8.0.16.32	8.0.16.40	8.0.16.32
RHEL 5.0 driver & SUSE SLES 10 driver	8.2.0.22_p1		8.2.0.22_p1	8.2.0.22_p1	8.1.6.7	8.1.6.7
QLogic <b>Balcony Card for p-Class Blades</b> (2G, PCI-X)						
QLogic <b>Mezzanine Card for p-Class Blades G2/G3</b> (2G, PCI-X)						
BIOS (BL25p)	1.48		1.48	1.48	1.48	1.48
BIOS (BL20p, BL30p, and BL35p)	1.48		1.48	1.48	1.48	1.48
RHEL 4.0 driver & SUSE SLES 9 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
RHEL 5.0 driver & SUSE SLES 10 driver	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25
<b>SAS Host Bus Adapters and Controllers</b>						
<b>P212, P410, P411 &amp; P700</b> (3Gb, PCI-e, 8 channel)	✓		✓		✓	✓
<b>SC44Ge</b> (3Gb, PCI-e, 4 channel) <sup>7,8,9</sup>	✓		✓		✓	✓
<b>SCSI Host Bus Adapters<sup>8,9</sup></b>						
<b>AH627A</b> (HP U320e, Ultra320, PCI-e, 2 channel)	✓		✓	✓		✓
<b>412911-B21</b> (HP SC11Xe, Ultra320, PCI-e, 1 channel)	✓		✓	✓		✓
<b>374654-B21</b> (Ultra320, PCI-X, 1 channel)	✓		✓	✓	✓	✓
<b>SCSI - Third Party HBAs and Integrated Controllers<sup>10,11</sup></b>						
Adaptec <b>29320ALP-R</b> (Ultra320, PCI-X, 1 channel)	✓		✓	✓	✓	✓
ATTOTech <b>UL4D</b> (Ultra320, PCI-X, 2 channel)	✓		✓	✓		✓
ATTOTech <b>UL5D</b> (Ultra320, PCI-e, 2 channel)	✓		✓	✓		✓
<b>Disk Array Multipath Support<sup>3</sup></b>						
Device Mapper	4.0.1		4.1.0	4.1.0	4.0.1	
Emulex Multipulse (2.6 kernels only)	2.1.9		2.1.9	2.1.9	2.2.20	2.2.20
QLogic Native Multi-Path for Linux (2.6 kernel)	8.01.07.25		8.01.07.25	8.01.07.25	8.01.07.25	8.01.07.25

## NOTES:

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 4) EBS is not dependent on specific kernel errata levels. For required supported kernel errata refer to your online storage array and backup application support documentation.
- 5) Due to tape device discovery issues, SP2 for SLES 9 is not supported.
- 6) 3rd Party adapters require HP drivers and firmware.
- 7) SC44Ge (416096-B21) is supported in the PCI Expansion Blade (448018-B21)

- 8) Refer to server QuickSpecs to determine which HBAs are supported
- 9) Third party x86 servers supported with HP-branded adapters only
- 10) See vendor website for additional details.
- 11) Third Party SCSI HBA support is for HP servers only

# HP StorageWorks EBS Compatibility Matrix

## EBS ESI Partner VM Support Details (page 1 of 2)

The table below shows the options that each ESI partner supports on virtualization host and guest virtual machines. It also shows support for extended virtual machine backup utilities like VCB (VMware Consolidated Backup).

	HP Data Protector <sup>2</sup>	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup <sup>2</sup>
<b>Virtual Operating Systems</b>	<b>Extended Solution Interoperability (ESI) <sup>1</sup></b>					
<b>HP Integrity VM</b>	<b>Host</b> (disk & media agent) <b>Guest VM</b> (disk & media agent)		<b>Host</b> (client, storage node)			<b>Host</b> (client, media server)
<b>Windows Server 2008 Hyper-V</b>	<b>Host</b> (disk & media agent) <b>Guest VM</b> (disk agent)	<b>Host</b> (client, server) <b>Guest VM</b> (client)	<b>Host</b> (client, storage node) <b>Guest VM</b> (client)	<b>Host</b> (client, storage agent) <b>Guest VM</b> (client)	<b>Host</b> (agent, media server) <b>Guest VM</b> (agent)	<b>Host</b> (client, media server) <b>Guest VM</b> (client)
<b>VMware ESX Server</b>	<b>Host</b> (disk & media agent) <b>Guest VM</b> (disk & media agent) <b>VCB</b> <b>ESX Integration</b>	<b>Host</b> (client) <b>Guest VM</b> (client) <b>VCB</b>	<b>Host</b> (client) <b>Guest VM</b> (client, storage node) <b>VCB</b>	<b>Host</b> (client) <b>Guest VM</b> (client) <b>VCB</b>	<b>Host</b> (agent) <b>Guest VM</b> (agent) <b>VCB</b>	<b>Host</b> (client) <b>Guest VM</b> (client) <b>VCB</b>

**Legend:**

- Host** = Backup application installed on virtual machine host
- Guest VM** = Backup application installed on virtual machine
- VCB** = VMware Consolidated Backup (off host backup using proxy server)
- ESX Integration** = Integration with ESX Server that allows backup of VMs (shutdown or suspended) without any scripting, and without VCB proxy

**NOTES:**

- 1) See "[How To Use This Document](#)" for description of support.
- 2) For details on backup methods see the implementation guides at [www.hp.com/go/ebs](http://www.hp.com/go/ebs)

The table below shows tape support for virtualization products and where to get details on supported interfaces.

VM Product	Direct Attached SCSI	iSCSI SAN	FC SAN	Support Notes
<b>Citrix XenServer Host</b>				No support statement for tape at this time.
<b>Citrix XenServer Guest VM</b>				No support statement for tape at this time.
<b>HPVM Host</b>	Yes	Yes	Yes	<a href="#">HP-UX 11.23 supported interfaces</a> Tape drive must not be attached to a guest VM while being used by the host.
<b>HPVM Guest VM</b>	Yes	Yes	Yes	<a href="#">HP-UX 11.23 supported interfaces</a> Tape drive must only be attached to a single guest VM at a time.
<b>Hyper-V Host</b>	Yes	Yes	Yes	<a href="#">Windows 2008 Supported interfaces</a>
<b>Hyper-V Guest VM</b>				No support statement for tape at this time.
<b>ESX 3.5 VMware Host</b>	Yes	No	No	Multi target only (no multi LUN). Tape drive must not be attached to a VM while being used by the host. For ESX Server supported interfaces see <a href="http://www.vmware.com/pdf/vi3_san_guide.pdf">http://www.vmware.com/pdf/vi3_san_guide.pdf</a>
<b>VMware Guest VM</b>	Yes	No	No	Multi target only (no multi LUN). Tape drive must only be attached to a single VM at a time. Detaching a tape drive from a VM requires a VM shutdown. For ESX Server supported interfaces see <a href="http://www.vmware.com/pdf/vi3_san_guide.pdf">http://www.vmware.com/pdf/vi3_san_guide.pdf</a>
<b>VMware Consolidated Backup</b>	Yes	Yes	Yes	<a href="#">Windows 2003 supported interfaces</a> SAN and shared tape devices are limited to the VCB Proxy server.



# HP StorageWorks EBS Compatibility Matrix

Solaris (page 1 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
Solaris 9	✓		✓	✓		✓
Solaris 10 SPARC	Update 5		Update 4	Update 4		Update 6
Solaris 10 x86/x64	Update 5		Update 6	Update 4		Update 4
<b>Servers</b>						
HP ProLiant c-Class BladeSystem	✓		✓	✓		✓
Sun UltraSPARC	✓		✓	✓		✓
Sun Sun Fire	✓		✓	✓		✓
HP ProLiant	✓		✓	✓		✓
<b>4Gb Fibre Channel Host Bus Adapters <sup>3</sup></b>						
<b>SG-XPCIE1FC-EM4 / SG-XPCIE2FC-EM4 (4G, PCI-e)</b>						
Emulex <b>LPe11000 / LPe11002</b> (4G, PCI-e)						
Sun Native Driver			✓ <sup>5</sup>	✓ <sup>5</sup>		✓ <sup>5</sup>
<b>SG-XPCIE1FC-QF4 / SG-XPCIE2FC-QF4 (4G, PCI-e)</b>						
QLogic <b>QLE2460 / QLE2462</b> (4G, PCI-e)						
Sun Native Driver	✓ <sup>5</sup>		✓ <sup>5</sup>	✓ <sup>5</sup>		✓ <sup>5</sup>
<b>SG-XPCI1FC-EM4-Z / SG-XPCI2FC-EM4-Z (4G, PCI-X 2.0)</b>						
Emulex <b>LP11000 / Emulex LP11002</b> (4G, PCI-X 2.0)						
Sun Native Driver	✓		✓	✓		✓
<b>SG-XPCI1FC-QF4 / SG-XPCI2FC-QF4 (4G, PCI-X 2.0)</b>						
QLogic <b>QLA2460 / QLA2462</b> (4G, PCI-X 2.0)						
Sun Native Driver	✓		✓	✓		✓
<b>LPe1105</b> (4G, PCI-e) for HP c-Class BladeSystem						
Sun Native Driver	✓ <sup>6</sup>		✓ <sup>6</sup>	✓ <sup>6</sup>		✓ <sup>6</sup>
<b>QMH2462</b> (4G, PCI-e) for HP c-Class BladeSystem						
Sun Native Driver	✓ <sup>6</sup>		✓ <sup>6</sup>	✓ <sup>6</sup>		✓ <sup>6</sup>
<b>2Gb Fibre Channel Host Bus Adapters <sup>3</sup></b>						
<b>SG-XPCI1FC-EM2 / SG-XPCI2FC-EM2 (2G, PCI-X)</b>						
Sun Native Driver						
Sun Native Driver	✓		✓	✓		✓
<b>SG-XPCI1FC-QF2 (X6767A) / SG-XPCI2FC-QF2 (X6768A) (2G, PCI-X)</b>						
Sun Native Driver						
Sun Native Driver	✓		✓	✓		✓
<b>SG-XPCI1FC-QL2 / SG-XPCI2FC-QF2-2 (2G, PCI-X)</b>						
Sun Native Driver						
Sun Native Driver	✓		✓	✓		✓
QLogic <b>QLA2340 / QLogic QLA2342</b> (2G, PCI-X)						
Fcode						
			2.00.09	2.00.09		
QLogic Driver						
			4.20	4.20		
Sun Native Driver						
			✓	✓		
<b>FCA2684</b> (Emulex <b>LP10000</b> ) / <b>FCA2684DC</b> (Emulex <b>LP10000DC</b> ) (2G, PCI-X)						
FW						
	1.91a1		1.91a1	1.91a1		1.91a1
Emulex Driver						
	6.02h		6.02h <sup>4</sup>	6.02h <sup>4</sup>		6.02h
Sun Native Driver						
			✓	✓		✓

**NOTES:**

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 4) Supported with Solaris 9 only.
- 5) Supported with Solaris 10 only.
- 6) Supported with Solaris 10 x86/x64 only.

# HP StorageWorks EBS Compatibility Matrix

Solaris (page 2 of 2)

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>SAS Host Bus Adapters</b>						
<b>SG-XPCI8SAS-E-Z</b> (PCI-X)						✓ <sup>4</sup>
<b>SG-XPCIE8SAS-E-Z</b> (PCI-e)						✓ <sup>4</sup>
<b>SCSI Host Bus Adapters</b>						
<b>SGXPCI1SCSILM320-Z</b> (Ultra320, PCI-X, 1 Channel)						✓ <sup>4</sup>
<b>SG-XPCIE2SCSIU320Z</b> (Ultra320, PCI-e, 2 Channel)						✓ <sup>4</sup>
<b>Disk Array Multipath Support <sup>1</sup></b>						
Solaris MPxIO	✓		✓	✓		✓
VERITAS DMP			✓ <sup>3</sup>			✓ <sup>3</sup>
<b>High Availability <sup>2</sup></b>						
VERITAS Cluster Server						✓

**NOTES:**

- 1) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 2) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

- 3) Supported with Solaris 10 only.
- 4) Please refer to Customer Advisory "[c01536454](#)" for required configuration details.

# HP StorageWorks EBS Compatibility Matrix

## Tru64 Unix

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
Tru64 5.1A <sup>8</sup>	5.1A pk6		5.1A pk6			5.1A pk6
Tru64 5.1B <sup>8</sup>	5.1B-4		5.1B-4			5.1B-4
<b>Servers</b>						
HP AlphaServer	✓		✓			✓
<b>2Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>						
<b>FCA2684 / FCA2684 DC (2G, PCI-X)</b>						
FW	1.91x6		1.91x6			1.91x6
Tru64 Driver	2.17		2.17			2.17
<b>FCA2354 (2G, PCI-X)</b>						
FW	3.93a0		3.93a0			3.93a0
Tru64 Driver	2.17		2.17			2.17
<b>FCA2354 (2G, PCI-X)</b>						
FW	1.91x6		1.91x6			1.91x6
Tru64 Driver	2.17		2.17			2.17
<b>SCSI Host Bus Adapters <sup>9</sup></b>						
<b>3X-KXPEA-DB (Ultra 160, PCI-X, 2 channel)</b>	✓		✓			✓
<b>Disk Array Multipath Support <sup>5</sup></b>						
Tru64 Multipath			Native			Native
<b>High Availability <sup>4</sup></b>						
Tru64 (TruCluster)			✓			✓

## OpenVMS

<b>Operating Systems <sup>1, 2</sup></b>						
OpenVMS 8.2 <sup>3, 6, 8</sup>	✓					
OpenVMS 8.2-1 <sup>3, 6, 8</sup>	✓					
OpenVMS 8.3 <sup>3, 6, 8</sup>	✓					
<b>Servers</b>						
HP AlphaServer	✓					
HP Integrity	✓					
<b>2Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>						
<b>FCA2684 / FCA2684 DC (2G, PCI-X)</b>						
FW	1.91x6					
OVMS Driver	Native					
<b>FCA2354 (2G, PCI-X)</b>						
FW	3.93a0					
OVMS Driver	Native					
<b>FCA2354 (2G, PCI-X)</b>						
FW	1.91x6					
OVMS Driver	Native					
<b>A6826A (2G, PCI-X)</b>						
EFI	1.47					
OVMS Driver	Native					

### NOTES:

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application, device and operating system version compatibility.
- 3) OpenVMS supported in switched fabric configurations only.
- 4) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.
- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 6) [Click here](#) for additional data protection applications and solution information for OpenVMS, which includes HP and 3rd Party Heterogeneous Backup Solutions, as well as OpenVMS-specific solutions including ABS (Archive Backup Systems) and SLS (Storage Library System)
- 7) Support is with BEB v10.5 only
- 8) Ultrium 230 (LTO) not supported
- 9) Refer to server QuickSpecs to determine which HBAs are supported

# HP StorageWorks EBS Compatibility Matrix

## AIX

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
AIX 6.1	✓ <sup>3</sup>			✓		
AIX 5.3	✓ <sup>3</sup>		✓	✓		✓
AIX 5.2	✓ <sup>3</sup>		✓	✓		✓
<b>Servers</b>						
IBM RS/6000	✓		✓	✓		✓
IBM pSeries	✓		✓	✓		✓
<b>4Gb Fibre Channel Host Bus Adapters <sup>4</sup></b>						
AIX <b>5773</b> (4G, PCI-e)						
AIX <b>5774</b> (4G, PCI-e)						
AIX Driver	Native <sup>7</sup>		Native <sup>7</sup>	Native <sup>7</sup>		
IBM <b>1905</b> (4G, PCI-X 2.0)						
IBM <b>1910</b> (4G, PCI-X 2.0)						
AIX Driver	Native <sup>6</sup>		Native <sup>6</sup>	Native <sup>6</sup>		Native <sup>6</sup>
IBM <b>5758</b> (4G, PCI-X 2.0)						
IBM <b>5759</b> (4G, PCI-X 2.0)						
AIX Driver	Native <sup>6</sup>		Native <sup>6</sup>	Native <sup>6</sup>		Native <sup>6</sup>
<b>2Gb Fibre Channel Host Bus Adapters <sup>4</sup></b>						
IBM <b>5716</b> (2G, PCI-X)						
AIX Driver	Native <sup>6</sup>		Native	Native		Native
IBM <b>6239</b> (2G, PCI-X)						
AIX Driver	Native		Native	Native		Native
IBM <b>6228</b> (2G, PCI-X)						
AIX Driver	Native		Native	Native		Native
<b>Disk Array Multipath Support <sup>4</sup></b>						
AIX MPIO	✓ <sup>5</sup>		✓	✓		✓

### NOTES:

- 1) SAN Media server supported with CA ARCserve 11.5 & prior. Version 12 only supports backup of LAN clients
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) Robot control is not supported
- 4) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 5) Disk and tape require dedicated HBA's.
- 6) Supported with AIX 5.3 only.
- 7) Supported with AIX 6.1 only.

# HP StorageWorks EBS Compatibility Matrix

## NetWare

DAS, DAF, and SAN Support	HP Data Protector	CA ARCserve <sup>1</sup>	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec for NetWare	Symantec Veritas NetBackup
<b>Operating Systems <sup>2</sup></b>						
NetWare 6.5	6.5 SP6	6.5 SP2 <sup>3</sup>			6.5 SP6	
<b>Servers</b>						
HP ProLiant <sup>5</sup>	✓	✓			✓	
HP ProLiant p-Class Blade Server <sup>5</sup>	✓	✓			✓	
Third Party X86	✓	✓			✓	
<b>4Gb Fibre Channel Host Bus Adapters <sup>3, 5</sup></b>						
<b>FCI143 / QLA2460 (4G, PCI-X 2.0)</b>						
<b>FCI243 / QLA2462 (4G, PCI-X 2.0)</b>						
FW	2.02					
NetWare Driver	6.90m					
<b>2Gb Fibre Channel Host Bus Adapters <sup>3, 5</sup></b>						
<b>FCA2214 (FCA2210) / QLA2340 (2G, PCI-X)</b>						
<b>FCA2214DC / QLA2342 (2G, PCI-X)</b>						
FW	1.45	1.45			1.45	
NetWare Driver	6.90m	6.51b			6.90m	
<b>SCSI Host Bus Adapters <sup>6, 7</sup></b>						
<b>374654-B21</b> (Ultra320, PCI-X, 1 channel)	✓	✓			✓	✓
<b>SCSI - Third Party HBAs and Integrated Controllers <sup>8, 9</sup></b>						
Adaptec <b>29320ALP-R</b> (Ultra320, PCI-X, 1 channel)	✓	✓			✓	✓
<b>Disk Array Multipath Support <sup>5</sup></b>						
MPIO	✓				✓	
<b>High Availability <sup>4</sup></b>						
NetWare 6.5 (NWCS)	✓				✓	

### NOTES:

- 1) Supported with CA ARCserve 11.1 only
- 2) Please reference your ISV support matrices for supported application and operating system version compatibility.
- 3) NetWare is supported with ESL libraries in a homogeneous environment only.
- 4) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.

- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 6) Refer to server QuickSpecs to determine which HBAs are supported
- 7) Third party x86 servers supported with HP-branded adapters only
- 8) See vendor website for additional details.
- 9) Third Party SCSI HBA support is for HP servers only

# HP StorageWorks EBS Compatibility Matrix

## RAID Arrays

SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>RAID Arrays</b>						
XP 24000/20000 <sup>1</sup>	✓	✓	✓	✓	✓	✓
XP 12000/10000 <sup>1</sup>	✓	✓	✓	✓	✓	✓
XP 1024/128 <sup>1</sup>	✓	✓	✓	✓	✓	✓
XP 48/512 <sup>1</sup>	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array <sup>1,3</sup> EVA 4100/6100/8100	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array <sup>1,3</sup> EVA 4000/6000/8000	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array <sup>1,3</sup> EVA 4400	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array <sup>1,3,6</sup> EVA 3000/5000	✓	✓	✓	✓	✓	✓
MSA2000fc	✓	✓	✓	✓	✓	✓
MSA2012sa	✓	✓	✓	✓	✓	✓
MSA1500 <sup>1</sup>	✓	✓	✓	✓	✓	✓
MSA1000 Small Business SAN Kit	✓ <sup>4</sup>	✓ <sup>5</sup>			✓ <sup>5</sup>	
MSA1000 <sup>2</sup>	✓	✓	✓	✓	✓	✓

### NOTES:

- 1) Consult with your hp solutions provider for disk array SAN compatibility information
- 2) For compatibility information about the optional MSA SAN Switch, refer to the [Networking](#) page within this document for support details
- 3) Supported with Fibre Channel and FATA disk drives.

- 4) LINUX and Windows support only
- 5) Windows support only
- 6) Supported with VCS 3.X and 4.X.

Storage Networking

SAN Support		Native Fibre Channel Drives			Virtual Library Systems			D2D Backup Systems		Interface Controllers						MSL G3 Libraries & 1/8 G2 Autoloaders	
SAN Switches <sup>1</sup>	Firmware	Ultrium 1840 FC Drive (4Gb)	Ultrium 960 FC Drive (4Gb)	Ultrium 960 FC Drive (2Gb)	VLS 12000 EVA Gateway	VLS 9000 Series	VLS 6000 Series	D2D4000 FC Series <sup>2</sup>	D2D4100 FC Series <sup>3</sup>	e2400-FC (4Gb)	e2400-FC (2Gb)	e2400-160 (2 Gb)	e1200-320 (4Gb)	NSR e1200-160 (2 Gb)	NSR n1200-320 (4Gb)	Ultrium 1760 SAS Drive	Ultrium 920 SAS Drive
<b>B-Series <sup>8</sup></b>																	
SAN Director 4/256 with 8/16, 8/32, 4/16, 4/32, and 4/48 FC Blades	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SAN Switch 8/8, 8/24, 8/40, 8/80	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SAN Switch 4/64, 4/32B, 4/32, 4/16, 4/8	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Brocade 4Gb SAN Switch for HP c-Class BladeSystem (4/12 and 4/24)	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Brocade 8Gb SAN Switch for HP BladeSystem c-Class (8/12c and 8/24c)	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Brocade 4Gb SAN Switch for HP p-Class BladeSystem	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Brocade 8Gb embedded SAN Switch for EVA4400	6.2.0a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SAN Director 2/128	5.3.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Core Switch 2/64	5.0.5f	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
SAN Switch 2/32, 2/8V, 2/16V, 2/16N	5.3.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SAN Switch 2/16, 2/8, 2/8-EL, 2/16-EL	3.2.1c	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
FC Switch 16B, 8B	3.2.1c	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
MSA SAN Switch 2/8	3.2.1c	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
<b>C-Series</b>																	
Cisco MDS 9513, 9509, 9506, 9222i, 9216i, 9124, 9124e, 9134	4.1(1c)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Cisco MDS 9216A, 9216, 9140, 9120	3.3(2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Cisco MDS 9020	2.1(3)	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
<b>M-Series</b>																	
McData 4Gb SAN Switch for HP p-Class BladeSystem	6.4.0.13.00	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
McData Spheron 4700, 4400	09.08.01	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
Director Switch 2/140, 2/64	09.08.01	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
Edge Switch 2/32, 2/24, 2/16, 2/12	09.08.01	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
<b>8Gb Simple SAN Connection</b>																	
HP StorageWorks 8/20q Fibre Channel Switch <sup>6</sup>	8.0.02.02.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>Multi-Protocol Routers, Gateways, and Virtual Connect <sup>1</sup></b>																	
HP 4Gb Virtual Connect FC Module (VC-FC) <sup>7</sup>	1.30	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
StorageWorks 400 Multi-Protocol Router <sup>2,5</sup>	6.2.0a	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
StorageWorks Multi-Protocol Router Blade <sup>2,5</sup>	6.2.0a	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
Multi-Protocol Router <sup>2,3</sup>	7.4.1e	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
IP Storage Router 2122-2 <sup>4</sup>	3.4.5c	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
<b>StorageWorks IP Distance Gateway</b>	<b>2.4.3.0</b>	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓		
<b>SAS Switches</b>																	
3Gb SAS BL Switch <sup>10</sup>	SEP 1.20 Virtual SAS Manager 1.1.5.0															✓	✓

NOTES:

- 1) Refer to [HP StorageWorks SAN Design Reference Guide](#) for configuration rules and guidelines
- 2) Supported with all backup application/operating system combinations.
- 3) Supported as a SAN-to-SAN interconnect only.  
Direct connection of libraries or hosts to the MP Router is not supported.
- 4) Supported for FC-IP SAN-to-SAN interconnect only.
- 5) Tape pipelining not supported.

- 6) Support for this platform is restricted. Please reference the switches' [Quick Spec on hp.com](#) for supported operating systems and host bus adapters.
- 7) Cisco supported with SAN-OS version 3.2(3) only. Does not support direct connection of tape devices.
- 8) Access Gateway (AG) mode is supported. See [SPOCK](#) for detailed support information.
- 9) Only supports fabric attach FC topologies using N\_Port Identifier Virtualization (NPIV). Private and public loop topologies are not yet supported
- 10) Only supported with ProLiant blades

# HP StorageWorks EBS Compatibility Matrix

## ProLiant Storage Servers (NAS), All-in-One (AiO) Storage Servers

DAS <sup>2</sup> , DAF, and SAN Support	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
<b>HP StorageWorks Enterprise File Services (EFS) Clustered Gateway is a file server gateway. Based on a truly symmetrical cluster file system</b>						
EFS Clustered Gateway (PolyServe) Windows EVA File Services (PolyServe) Windows	✓	✓	✓ <sup>4</sup>	✓	✓	✓
EFS Clustered Gateway (PolyServe) Linux EVA File Services (PolyServe) Linux	✓		✓	✓		✓
<b>HP All-in-One (AiO) Storage, single solution providing shared storage for application servers (iSCSI Target), file serving (NAS), backup target services and data protection software</b>						
AiO1200 <sup>5</sup>	✓	✓	✓	✓	✓	✓
AiO1200r	✓	✓	✓	✓	✓	✓
AiO600	✓	✓	✓	✓	✓	✓
AiO400t	✓	✓	✓	✓	✓	✓
AiO400r	✓	✓	✓	✓	✓	✓
AiO SB600c Storage Blade <sup>3</sup>	✓	✓	✓	✓	✓	✓
<b>HP ProLiant Storage Server is a powerful file and print solution that enables environments to centralized Network Attached Storage (NAS).</b>						
DL585 G2 Storage Server <sup>5</sup>	✓	✓	✓	✓	✓	✓ <sup>1</sup>
DL380 G5 Storage Server <sup>5</sup>	✓	✓	✓	✓	✓	✓ <sup>1</sup>
DL320s Storage Server <sup>5</sup>	✓	✓	✓	✓	✓	✓ <sup>1</sup>
DL185 G5 Storage Server	✓	✓	✓	✓	✓	✓ <sup>1</sup>
DL160 G5 Storage Server	✓	✓	✓	✓	✓	✓ <sup>1</sup>
ML350 G5 Storage Server	✓	✓	✓	✓	✓	✓ <sup>1</sup>
ML110 G5 Storage Server	✓	✓	✓	✓	✓	✓ <sup>1</sup>
BL460c Storage Server <sup>3</sup>	✓	✓	✓	✓	✓	✓ <sup>1</sup>

**NOTES:**

1) Requires NetBackup 5.0 MP2 or later.

2) SAS support requires Storport.sys KB950448.

3) Tape connectivity via direct-attach FC and Tape Blade.

4) Please refer to Customer Advisory "[c01290486](#)" for required configuration details.

5) DAS tape connectivity via direct-attach SCSI only.



# HP StorageWorks EBS Compatibility Matrix

## Storage Software

	HP Data Protector	CA ARCserve	EMC NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec Veritas NetBackup
Command View TL	2.3.01	2.3.01	2.3.01	2.3.01	2.3.01	2.3.01
Continuous Access	✓	✓	✓	✓	✓	✓
Insight Manager Agents	8.11.0	8.11.0	8.11.0	8.11.0	8.11.0	8.11.0
PolyServe	✓	✓ <sup>2</sup>	✓ <sup>1</sup>	✓	✓	✓
Smart Start	8.10	8.10	8.10	8.10	8.10	8.10
Storage Essentials	6.0.4	6.0.4	6.0.4	6.0.4	6.0.4	6.0.4
Systems Insight Manager (SIM)	5.2	5.2	5.2	5.2	5.2	5.2

### NOTES:

- 1) Please refer to Customer Advisory "[c01290486](#)" for required configuration details.
- 2) Supported with CA ARCserve for Windows.

# HP StorageWorks EBS Compatibility Matrix

## Legacy Device Support

Device Name	Last EBS Compatibility Matrix Where Device Was Listed <sup>1</sup>
Ultrium 460 & 448 Drives, Ultrium 232 1/8 Autoloader, D2D110, VLS300, VLS1002i	November 2008
Network Storage Routers N1200 & M2402	July 2008
1/8 Autoloaders	December 2007
ESL9000 series libraries	September 2007
ESL E-Series SDLT 160/320, ESL9000 Series SDLT 160/320, 1/8 Tape Autoloader (SDLT 160/320)	July 2007
ESL9000 Series (Ultrium 230 and SDLT 110/220),MSL5000 Series	March 2006
SSL1016 Tape Autoloaders, 1/8 Tape Autoloaders (Ultrium 230 and Ultrium 460)	March 2006
ESL9326 DX, ESL9198 DLX, MSL5026 DLX, SSL2020 TL, DLT 40/80	March 2005
Modular Data Router (MDR)	February 2004
TL895, TL891DLX	December 2002
ESL9326D, TL891D, DLT 35/70	April 2002

**NOTES:**

1) EBS Compatibility Matrices from the last several years can be found on <http://www.hp.com/go/ebs>.  
For matrices older than listed, consult your HP Account Representative.

# HP StorageWorks EBS Compatibility Matrix

## Useful Links

Product Family	URL
EBS Home Webpage	<a href="http://www.hp.com/go/ebs">http://www.hp.com/go/ebs</a>
EBS Design Guide	<a href="http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00775232/c00775232.pdf">http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00775232/c00775232.pdf</a>
EBS 1-2-3	<a href="http://h18000.www1.hp.com/products/storageworks/ebs/ebs123.html">http://h18000.www1.hp.com/products/storageworks/ebs/ebs123.html</a>
EBS Example Configurations	<a href="http://h200005.www2.hp.com/bc/docs/support/SupportManual/c00375285/c00375285.pdf">http://h200005.www2.hp.com/bc/docs/support/SupportManual/c00375285/c00375285.pdf</a>
Library and Tape Tools (LTT)	<a href="http://h18006.www1.hp.com/products/storageworks/ltt/index.html">http://h18006.www1.hp.com/products/storageworks/ltt/index.html</a>
Interconnects	<a href="http://h18006.www1.hp.com/storage/saninfrastructure.html">http://h18006.www1.hp.com/storage/saninfrastructure.html</a>
RAID Arrays	<a href="http://h18006.www1.hp.com/storage/arrayssystems.html">http://h18006.www1.hp.com/storage/arrayssystems.html</a>
Storage Software	<a href="http://h18006.www1.hp.com/storage/software.html">http://h18006.www1.hp.com/storage/software.html</a>
Data Protector	<a href="http://www.hp.com/go/dataprotector">http://www.hp.com/go/dataprotector</a>
Storage Media	<a href="http://h18006.www1.hp.com/storage/storagemedia.html">http://h18006.www1.hp.com/storage/storagemedia.html</a>
Firmware & Driver Downloads	<a href="http://welcome.hp.com/country/us/en/support.html">http://welcome.hp.com/country/us/en/support.html</a>
Windows OS/ProLiant Server Support Matrix	<a href="http://h10018.www1.hp.com/wwsolutions/windows/index-all.html">http://h10018.www1.hp.com/wwsolutions/windows/index-all.html</a>
Linux OS/ProLiant Server Support Matrix	<a href="http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html">http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html</a>
NetWare OS/ProLiant Server Support Matrix	<a href="http://h10018.www1.hp.com/wwsolutions/novell/index-all.html">http://h10018.www1.hp.com/wwsolutions/novell/index-all.html</a>
IT Resource Center Website	<a href="http://itrc.hp.com">http://itrc.hp.com</a>
Performance and Troubleshooting Support	<a href="http://www.hp.com/support/pat">http://www.hp.com/support/pat</a>
Network Services - Backup and Recovery	<a href="http://h20219.www2.hp.com/services/cache/10819-0-225-121.aspx">http://h20219.www2.hp.com/services/cache/10819-0-225-121.aspx</a>
Tape Systems	<a href="http://www.hp.com/go/tape">http://www.hp.com/go/tape</a>
HP StorageWorks SAN Design Reference Guide	<a href="http://h20000.www2.hp.com/bizsupport/TechSupport/DocumentIndex.jsp?contentType=SupportManual&amp;locale=en_US&amp;docIndexId=179911&amp;taskId=101&amp;prodTypeId=12169&amp;prodSeriesId=406734">http://h20000.www2.hp.com/bizsupport/TechSupport/DocumentIndex.jsp?contentType=SupportManual&amp;locale=en_US&amp;docIndexId=179911&amp;taskId=101&amp;prodTypeId=12169&amp;prodSeriesId=406734</a>

# HP StorageWorks EBS Compatibility Matrix

## Important Advisories

Date	Problem Description	Number
<b>Tape Libraries Advisories</b>		
Dec 17, 2008	Erroneous cleaning cartridge nearly expired warning messages from the HP StorageWorks 1/8 G2 Tape Autoloader or the HP StorageWorks MSL2024, MSL4048, and MSL8096 G3 libraries	<a href="#">c01626857</a>
Aug 27, 2008	Errors on all tokens when the HP StorageWorks Encryption Kit is used with early HP StorageWorks MSL2024 libraries	<a href="#">c01509121</a>
Aug 20, 2008	The HP StorageWorks 1/8 G2 autoloader, MSL2024, MSL4048, and MSL8096 tape libraries are not supported with HP StorageWorks SAS drives on HP-UX 11.23	<a href="#">c01534825</a>
Jul 18, 2008	HP StorageWorks Ultrium 4 drives do not communicate with the host on HP StorageWorks 1/8 G2 Autoloader or HP StorageWorks MSL2024, MSL4048, or MSL8098 libraries when the Encryption Kit is enabled	<a href="#">c01487509</a>
Mar 13, 2008	HP StorageWorks ESL E-Series libraries will post an error message when upgrading from 6.20 to 6.22 firmware	<a href="#">c01387942</a>
Mar 12, 2008	HP StorageWorks D2D Backup Systems using HP Data Protector 6.0 (A.06.00) cannot import media containing spanned backup sessions	<a href="#">c01214249</a>
Mar 7, 2008	HP StorageWorks ESL E-Series libraries have issues migrating from 1.x Interface Manager code to Interface Manager 2.20, 2.30, and possibly future firmware	<a href="#">c01377519</a>
Feb 27, 2008	HP StorageWorks Virtual Library Systems (VLS) will not initialize after upgrading the system BIOS on HP ProLiant DL360 G5 node server using the 7.91 Firmware Maintenance CD	<a href="#">c01369226</a>
Jan 2, 2008	HP StorageWorks Virtual Library System (VLS) is not functional after entering or modifying the network configuration settings	<a href="#">c01292136</a>
Nov 30, 2007	Error F5 during an HP L&T drive or media assessment test on an HP StorageWorks 1/8 G2 Tape Autoloader or HP StorageWorks MSL2024, 4048, or 8096 Tape Libraries.	<a href="#">c01273166</a>
Nov 12, 2007	HP Secure Key Manager (SKM) - Data Protection Application behavior when SKM is unavailable	<a href="#">c01269477</a>
Oct 1, 2007	(Revised) HP StorageWorks Ultrium 230/460/960 Tape Drives - tape unload instructions for tapes stuck in Ultrium 230/460/960 tape drives	<a href="#">c00795203</a>
Oct 5, 2007	Virtual Library Systems - VLS models 6200, 6600, and the 12000 EVA Gateway running software version 2.0.0 are not currently supported with ARCserve 11.1 or 11.5 running on Linux.	<a href="#">c01181673</a>
Sep 1, 2007	NetApp Filers - Unable to Access Tape Devices Mapped Behind Port 1 of Interface Controllers in ESL E-Series and EML E-Series Enterprise Tape Libraries	<a href="#">c01154679</a>
May 31, 2007	HP StorageWorks MSL5000 and MSL6000 Libraries - potential for CRC or Parity Errors when SCSI Termination is on the Controller	<a href="#">c00659626</a>
<b>Application Advisories</b>		
<b>Feb 24, 2009</b>	<b>HP StorageWorks One Button Disaster Recovery with Symantec Backup Exec for Windows requires creation of a disaster recovery file for automatic mode to work properly</b>	<a href="#">c01678591</a>
Nov 14, 2008	HP Storage Essentials CIM Extensions might slow down or disrupt the operation of a busy HP Data Protector Cell Manager when the Cell Manager is running on minimal hardware	<a href="#">c01598751</a>
Sep 23, 2008	Data Protector Express 4.0 is unable to read or import data from Data Protector Express 3.5 on Linux 32bit or 64bit systems	<a href="#">c01548338</a>
Apr 4, 2008	Cleaning cartridge does not return to original storage slot after performing an autoloader tape drive clean operation when using Data Protector Express 3.5 SP2 Media wizard	<a href="#">c01413689</a>
Apr 4, 2008	Move media operation from the mail slot to any storage slot in an Autoloader or Changer library will hang when using Data Protector Express 3.5 SP2	<a href="#">c01413680</a>
Dec 5, 2007	EMC NetWorker not recognizing the HP PolyServe clustered file system (PSFS)	<a href="#">c01290486</a>
<b>Operating System Advisories</b>		
Aug 21, 2008	Data Protector in HP-UX version 11.31 may issue spurious critical warnings on reads and writes to LTO WORM media	<a href="#">c01519155</a>
Aug 18, 2008	HP-UX 11.31 Poor I/O performance due to memory blocking during high system memory usage.	<a href="#">c01527093</a>
Nov 21, 2007	Solaris – ESL E-Series and EML E-Series Library Reboots Causing Device Access Issues on Servers Running Sun Native HBA Drivers	<a href="#">c00965686</a>
May 31, 2007	Microsoft Windows Server 2003 - Interoperability Issues with Persistent Binding of Symbolic Tape Names in an Enterprise Backup Solution (EBS) Configuration	<a href="#">c01064312</a>
Mar 26, 2007	Emulex StorPort Driver - Targets Cannot be Persistently Bound when Running with the Emulex StorPort Driver	<a href="#">c00871551</a>
Mar 7, 2007	Microsoft Windows SAN - How to Disable Tape Drive Polling on Microsoft Windows SAN-Attached Servers Running hplto.sys	<a href="#">c00718488</a>
Mar 1, 2007	HP-UX 11.11 - Running Get All Elements Details on HP-UX 11.11 Hosts Can Cause Tape Backups to Abort	<a href="#">c00869191</a>
<b>Miscellaneous Advisories</b>		

NOTE: There may be other important advisories that may effect your EBS environment that are not listed on this page. Refer to the technical knowledge base or contact your local support representative for additional information.

To view these advisories do the following:

- 1) Click on the advisory number above to go to the Business Support Center or go to the IT Resource Center at <http://itrc.hp.com> (NOTE: To review the ITRC documents, you must register to use this website.)
- 2) Select "search technical knowledge base" (located at the top of the page under "maintenance and support (hp products)")
- 3) To search the technical knowledge base, enter a search word like "EBS" or an advisory number listed above.