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

February 2006 Version 1.0

Start Here

Enterprise Backup Solution Compatibility Matrix Index

(Click on topic to jump to that page)

The (👆) icon indicates a hotlink. See Sample Page Layout.

How To Use This Document

The **HP StorageWorks Enterprise Backup Solution (EBS) Compatibility Matrix** provides information for designing data protection solutions 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. 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**.

Each application listed in the EBS Compatibility Matrix is classified as either Extended Solution Interoperability or Tape Device Compatibility. See below for more information:

Extended Solution Interoperability: HP performs on-going interoperability and extensive solution testing to provide fully certified and supported data protection solutions with these applications. In addition to HP tape automation products; these solutions are verified with a variety of servers, operating systems, host bus adapters, switches, disk arrays, and storage software in complex, heterogeneous SANs. Detailed support information for these solutions can be found in this document.

Tape Device Compatibility: Tape device compatibility is verified and supported with these applications through a cooperative test effort with the software vendor. Tape device support can be found in this document. Contact the software vendor for application version information and interoperability details.

See the **Libraries and Applications** page for application support.

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**. For information on stand alone tape products and compatibility, go to **www.hp.com/go/connect**.

HP StorageWorks EBS
Compatibility Matrix

Sample Page Layout

Index menu system, click to navigate to other pages

Yellow Box indicates current page selection

HP StorageWorks EBS Compatibility Matrix

Index Libraries and Applications Advanced Library Features Interface Controllers HP-UX Windows Linux Solaris Tru64/OVMS
AIX NetWare RAID Arrays Infrastructure NAS SCSI HBAs Storage Software Backup App. Legacy Links Advisories

HP-UX (Integrity) [5]

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1,2]						
HP-UX 11.23 (11i v2)	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005		HWE 11.23 May 2005 Quality Pack May 2005
Servers						
HP Integrity Superdome and Mid-Range (rx7000-rx8000, Integrity)	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx5000, Integrity)	✓	✓	✓	✓		✓
Workstations						
HP xz series (IA)	✓					
Fibre Host Bus Adapters [4]						
AB465A (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9782 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9784 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A6795A (2G)						
FW	1.10	1.10	1.10	1.10		1.10
td Driver	Native	Native	Native	Native		Native
A6826A (2G)						
FW	3.03.150	3.03.150	3.03.150	3.03.150		3.03.150
fcd Driver	Native	Native	Native	Native		Native
Disk Array Multipath Support [4]						
AutoPath for HP-UX	2.01.02		2.01.02			
Secure Path for HP-UX	3.0F SP1	3.0F SP1	3.0F SP1	3.0F SP1		3.0F SP1
High Availability [6]						
MC/ServiceGuard	✓[3]		✓[3]			

NOTES:
1) Other Operating Systems may be supported within EBS by the respective ISVs as 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 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.

February 2006, v1.0

Page 11 of 35

CLICK cell to navigate to the HP product webpage

CLICK cell to navigate to the firmware/driver download page

NOTES: section contains specific configuration details

Matrix Version

Navigation buttons

Libraries and Applications

DAF, SAN, and DAS Support [1]	Firmware	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup	Atempo Time Navigator	BakBone NetVault	CommVault QiNetix Galaxy	Syncsort Backup Express
Enterprise Class Libraries		Extended Solution Interoperability[1]						Tape Automation Compatibility[1]			
ESL E-Series [2]	4.10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 960 FC	L26W	✓	✓	✓	✓	✓	✓		✓	✓	✓
Ultrium 460	F59W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 460 FC	K42W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDLT 600	v40	✓	✓	✓	✓	✓	✓		✓	✓	✓
SDLT 160/320	v85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EML E-Series [2]	1022	✓	✓	✓		✓	✓		✓	✓	
Ultrium 960 FC	L29S	✓	✓	✓		✓	✓		✓	✓	
Ultrium 460 FC	K4B0	✓	✓	✓		✓	✓		✓	✓	
ESL 9000 Series [2]	3.60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 960	G25W	✓	✓	✓	✓	✓	✓		✓	✓	✓
Ultrium 460	F59W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 230	E38W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDLT 600	v40	✓	✓	✓	✓	✓	✓		✓	✓	✓
SDLT 160/320	v85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDLT 110/220	v85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Virtual Library Systems											
VLS 6000 Series [3]	1.0.12	✓	✓	✓	✓	✓	✓		✓	✓	
Business Class Libraries											
MSL 6000 Series [2]	5.13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 960	G25W	✓	✓	✓	✓	✓	✓		✓	✓	✓
Ultrium 460	F59W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDLT 600	v40	✓	✓	✓	✓	✓	✓		✓	✓	✓
MSL 5000 Series [2]	5.13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ultrium 960	G25W	✓	✓	✓	✓	✓	✓		✓	✓	✓
Ultrium 230	E38W	✓	✓	✓	✓	✓	✓		✓	✓	✓
SDLT 600	v40	✓	✓	✓	✓	✓	✓		✓	✓	✓
SDLT 160/320	v85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDLT 110/220	v85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 2024 [2]	1.80	✓	✓			✓	✓		✓	✓	
Ultrium 960	G39W	✓	✓			✓	✓		✓	✓	
Ultrium 448	S39W	✓	✓			✓	✓		✓	✓	
Autoloaders [4]	**Robot (Drive)**										
SSL1016 Tape Autoloader (Ultrium 460)	v20 (F59W)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SSL1016 Tape Autoloader (SDLT160/320)	v40 (v85)	✓	✓	✓		✓	✓	✓	✓	✓	✓
SSL1016 Tape Autoloader (DLT1)	v40 (v64)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1/8 Tape Autoloader (Ultrium 960)	1.46 (G38W)	✓	✓	✓	✓	✓	✓		✓	✓	
1/8 Tape Autoloader (Ultrium 448)	1.46 (S38W)	✓	✓	✓	✓	✓	✓		✓	✓	
1/8 Tape Autoloader (Ultrium 460)	N12r (F7BP)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1/8 Tape Autoloader (Ultrium 232)	1.46 (P32W)	✓	✓	✓	✓	✓	✓		✓	✓	
1/8 Tape Autoloader (Ultrium 230)	H43r (E33P)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1/8 Tape Autoloader (SDLT 160/320)	L12r (v85)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1/8 DLT Tape Autoloader (vs80)	5E40 (v65)	✓	✓	✓	✓	✓		✓	✓	✓	✓

NOTES:

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

2) The HP StorageWorks SDLT 600 and/or Ultrium 960 Tape Drives include support for WORM (Write-Once, Read-Many) functionality. WORM implementation is dependent on the backup application.

3) Minimum supported version is 1.0.4.

4) Autoloaders are only supported in Direct Attach SCSI configurations

Advanced Library Features

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Enterprise Libraries	**IMPORTANT:** See the Backup Application Details page for the latest supported versions of backup software.					
ESL E-Series Cross Link [1]	✓	✓[3]	✓	✓		✓
ESL 9000 Multi-Unit Scalability [1]	✓	✓[3]	✓	✓		✓
ESL Mixed Media	✓	✓[3]	✓	✓	✓[4]	✓
ESL Partitioning	✓	✓[3]	✓	✓	✓[4]	✓
EML Partitioning	✓		✓		✓[4]	✓
Midrange Libraries						
MSL 5000/6000 Multi-Unit Scalability [1,2]	✓	✓	✓	✓	✓	✓
MSL 5000/6000 Mixed Media Support	✓	✓	✓	✓	✓[4]	✓

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.

Libraries and Interface Controllers

DAF and SAN Support [1]	e2400-FC 4G Interface Controller (FC-FC)	e2400-FC 2G Interface Controller (FC-FC)	e2400-160 Interface Controller (FC-SCSI)	NSR E2400 [3]	NSR M2402	NSR N1200
Enterprise Libraries						
ESL E-Series 712e/322e (Ultrium 960 FC)	✓	✓				
ESL E-Series 712e/322e (Ultrium 460)			✓			
ESL E-Series 712e/322e (Ultrium 460 FC)	✓	✓				
ESL E-Series 630e/286e (SDLT320)			✓			
ESL E-Series 630e/286e (SDLT600)			✓			
EML E-Series (Ultrium 960 FC)	✓	✓				
EML E-Series (Ultrium 460 FC)	✓	✓				
ESL 9595 (Ultrium 960)			✓		✓	
ESL 9595 (Ultrium 460)			✓		✓	
ESL 9595 (Ultrium 230)			✓	✓	✓	✓
ESL 9595 (SDLT600)			✓		✓	
ESL 9595 S2 (SDLT320)			✓	✓	✓	✓
ESL 9595 SL			✓	✓	✓	✓
ESL 9326 (Ultrium 960)			✓		✓	
ESL 9326 (SDLT600)			✓		✓	
ESL 9326 (SDLT320)			✓	✓	✓	✓
ESL 9326 SL			✓	✓	✓	✓
ESL 9322 (Ultrium 960)			✓		✓	
ESL 9322 (Ultrium 460)			✓		✓	
ESL 9322 (Ultrium 230)			✓	✓	✓	✓
ESL 9322 (SDLT600)			✓		✓	
ESL 9322 (SDLT320)			✓	✓	✓	✓
ESL 9198 (Ultrium 960)			✓		✓	
ESL 9198 (SDLT600)			✓		✓	
ESL 9198 S2 (SDLT320)			✓	✓	✓	✓
ESL 9198 SL			✓	✓	✓	✓
ESL E-Series Cross Link	✓	✓	✓			
ESL 9000 Multi-Unit Scalability [2]			✓	✓	✓	✓
Interface Manager	✓	✓	✓			

NOTES:

1) For ISV compatibility information with the routers, refer to the Interface Controllers page within this document or click here.

2) Multi-unit configurations that include an Interface Manager card are restricted to two libraries.

3) E2400 interface controller is comprised of (2) E1200 interface controllers.

Libraries and Interface Controllers - Continued

DAF and SAN Support [1]	NSR E1200-160	NSR E1200	NSR M2402	NSR N1200
Mid-Range Libraries				
MSL 6060 (Ultrium 960)	✓		✓	
MSL 6060 (Ultrium 460)	✓		✓	
MSL 5060 (Ultrium 230)	✓	✓	✓	✓
MSL6052 (SDLT 600)	✓		✓	
MSL5052 (SDLT 600)	✓		✓	
MSL 5052 S2	✓	✓	✓	✓
MSL 5052 SL	✓	✓	✓	✓
MSL 6030 (Ultrium 960)	✓		✓	
MSL 6030 (Ultrium 460)	✓		✓	
MSL 5030 (Ultrium 230)	✓	✓	✓	✓
MSL 6026 (SDLT 600)	✓		✓	
MSL 5026 (SDLT 600)	✓	✓	✓	✓
MSL 5026 S2	✓	✓	✓	✓
MSL 5026 SL	✓	✓	✓	✓
MSL 2024				✓
MSL Multi-Unit Scalability	✓	✓	✓	✓

NOTES:

1) For ISV compatibility information with the routers, refer to the Interface Controllers page within this document or click here.

Interface Controllers and Serverless Support

DAF and SAN Support	Supported Release	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Fibre Channel Interface Controller							
Interface Manager	i161	✓	✓	✓	✓	✓	✓
e2400-FC 4G Interface Controller (FC-FC)	5.7.06	✓	✓	✓	✓	✓	✓
e2400-FC 2G Interface Controller (FC-FC)	5.6.7a	✓	✓	✓	✓	✓	✓
e2400-160 Interface Controller (FC-SCSI)	5.6.7a	✓	✓	✓	✓	✓	✓
NSR E1200-160	5.6.7a	✓	✓	✓	✓	✓	✓
NSR E2400	5.6.7a	✓	✓	✓	✓	✓	✓
NSR E1200	5.6.7a	✓	✓	✓	✓	✓	✓
NSR M2402	5.6.7a	✓	✓	✓	✓	✓	✓
NSR N1200	5.6.7a	✓	✓	✓	✓	✓	✓
Serverless Backup [1,2,3,6,8] **(SAN Support Only)**							
e2400-160 Interface Controller (FC-SCSI)		✓[7]					
NSR E2400						✓[4]	✓[5]
NSR E1200						✓[4]	✓[5]
NSR M2402		✓[7]				✓[4]	✓[5]

	Interface Manager Firmware Required Minimum Component						
	i130	i141	i142	i150	i155	i160	i161
e2400-FC 4G Interface Controller (FC-FC)	N/A	N/A	N/A	N/A	N/A	N/A	5.7.06
e2400-FC 2G Interface Controller (FC-FC)	5.4.25	5.6.06	5.6.06	5.6.41	5.6.69	5.6.78	5.6.7a
e2400-160 Interface Controller (FC-SCSI)	5.4.25	5.6.06	5.6.06	5.6.41	5.6.69	5.6.78	5.6.7a
NSR E2400	5.4.25	5.6.06	5.6.06	5.6.41	5.6.69	5.6.78	5.6.7a
NSR E1200-160	5.4.25	5.6.06	5.6.06	5.6.41	5.6.69	5.6.78	5.6.7a
ESL 9595/9322	3.48	3.48	3.55	3.55	3.55	3.60	3.60
ESL 9198/9326	3.48	3.48	3.55	3.55	3.55	3.60	3.60
ESL E-Series 712e/630e	1.10	2.00	2.00	3.00	3.00	4.10	4.10
ESL E-Series 322e/286e	1.10	2.00	2.00	3.00	3.00	4.10	4.10
EML E-Series	N/A	N/A	N/A	N/A	1016	1022	1022
JAVA Run Time	1.4.2	1.4.2	1.4.2	1.4.2	1.4.2	1.4.2	1.4.2
Command View TL	1.3.00	1.4.01	1.4.02	1.50	1.5.05	1.6.00	1.6.01

NOTES:

1) Serverless backup supported in single path configurations only.

2) Serverless backup not supported with 5.3.0b or 5.4.25 NSR firmware.

3) Serverless backup is restricted to Qlogic Windows driver version 8.2.0.73 or any version of Emulex HBA driver.

4) Windows 2000 ServerFree opt with HSG, EVA, MSA1000 only.

5) Supported with Solaris 8 & 9, VERITAS NetBackup 4.5 and 5.X, nbu_snap with HSG and EVA only (master router configuration not supported).

6) Serverless Backup functionality is not available with the e1200-160 interface controller.

7) Supported with XP128/1024 and version 5.1.08 of NSR firmware.

8) The LUN ID of the disk volume to be backed up must be the same for the host and the interface controller.

HP-UX (PA-RISC) [6]

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
HP-UX 11.0	HWE 1100 March 2004	HWE 1100 March 2004	HWE 1100 March 2004	HWE 1100 March 2004		HWE 1100 March 2004
HP-UX 11.11 (11i v1)	HWE 11.11, Dec 2004 Gold Pack, Dec 2004	HWE 11.11, Dec 2004 Gold Pack, Dec 2004	HWE 11.11, Dec 2004 Gold Pack, Dec 2004	HWE 11.11, Dec 2004 Gold Pack, Dec 2004		HWE 11.11, June 2005 Quality Pack. June 2005
HP-UX 11.23 (11i v2)	Sept 2004					
Servers						
HP 9000 Superdome and Mid-Range (rp7000-rp8000, PA-RISC)	✓	✓	✓	✓		✓
HP 9000 Entry-Level (rp2000-rp5000, PA-RISC)	✓	✓	✓	✓		✓
HP A, L, N, and V Class (PA-RISC)	✓	✓	✓	✓		✓
HP R Class (PA-RISC) [3]	✓	✓	✓	✓		✓
Workstations						
HP B-Class (PA-RISC)	✓					✓
HP C-Class (PA-RISC)	✓					✓
HP J-Class (PA-RISC)	✓					✓
Fibre Host Bus Adapters [5]						
AB465A (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9782 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9784 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A6826A (2G)						
fcd Driver	Native	Native	Native	Native		Native
FW	3.03.150	3.03.150	3.03.150	3.03.150		3.03.150
A6795A (2G)						
td Driver	Native	Native	Native	Native		Native
A5158A (1G)						
td Driver	Native	Native	Native	Native		Native
Disk Array Multipath Support [5]						
AutoPath for HP-UX	2.01.02		2.01.02			2.01.02
Secure Path for HP-UX	3.0F SP1	3.0F SP1	3.0F SP1	3.0F SP1		3.0F SP1
High Availability [4]						
MC/ServiceGuard	✓[3]		✓[3]			

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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 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) For Boot from Tape support, click here, and select the type of tape for compatibility.

HP-UX (Integrity) [5]

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
HP-UX 11.23 (11i v2)	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005	HWE 11.23 May 2005 Quality Pack May 2005		HWE 11.23 May 2005 Quality Pack May 2005
Servers						
HP Integrity Superdome and Mid-Range (rx7000-rx8000, Integrity)	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx5000, Integrity)	✓	✓	✓	✓		✓
Workstations						
HP xz series (IA)	✓					
Fibre Host Bus Adapters [4]						
AB465A (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9782 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A9784 (2G Combo Card)						
FW						
fcd Driver	Native	Native	Native	Native		Native
A6795A (2G)						
FW	1.10	1.10	1.10	1.10		1.10
td Driver	Native	Native	Native	Native		Native
A6826A (2G)						
FW	3.03.150	3.03.150	3.03.150	3.03.150		3.03.150
fcd Driver	Native	Native	Native	Native		Native
Disk Array Multipath Support [4]						
AutoPath for HP-UX	2.01.02		2.01.02			
Secure Path for HP-UX	3.0F SP1	3.0F SP1	3.0F SP1	3.0F SP1		3.0F SP1
High Availability [6]						
MC/ServiceGuard	✓[3]		✓[3]			

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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 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.

Windows (32-bit)

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
Windows 2000 Server/AS	sp4	sp4	sp4	sp4	sp4	sp4
Windows Server 2003 (32-bit)	sp1	sp1	sp1	sp1	sp1	sp1
Windows Server 2003 R2 (32-bit)	✓	✓	✓	✓	✓	✓
Servers						
HP ProLiant	✓	✓	✓	✓	✓	✓
HP ProLiant Blade Server	✓	✓	✓	✓	✓	✓
HP NetServer	✓	✓	✓	✓	✓	✓
Third Party X86	✓	✓	✓	✓	✓	✓
Fibre Host Bus Adapters [5, 6]						
HP Branded / 3rd Party						
FC1142SR / QLogic QLE2460 (4G)						
BIOS	1.06		1.06			1.06
WIN 2000/2003 SCSIport Driver	9.1.0.13		9.1.0.13			9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18		9.1.0.18			9.1.0.18
FC1242SR DC / QLogic QLE2462 (4G)						
BIOS	1.06		1.06			1.06
WIN 2000/2003 SCSIport Driver	9.1.0.13		9.1.0.13			9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18		9.1.0.18			9.1.0.18
FC2142SR / Emulex LPe1150 (4G)						
FW	2.50a2		2.50a2			2.50a2
WIN 2000/2003 SCSIport Driver	5-5.20a9		5-5.20a9			5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0		5-1.11a0			5-1.11a0
FC2242SR DC / Emulex LPe11002-M4 (4G)						
FW	2.50a2		2.50a2			2.50a2
WIN 2000/2003 SCSIport Driver	5-5.20a9		5-5.20a9			5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0		5-1.11a0			5-1.11a0
A7387A / Emulex LP1050DC (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
A7388A / Emulex LP1050 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
A7560A / Emulex LP1050EX-F2 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as LAN clients.

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

3) Requires updated Storport.sys QFE891793 (minimum) or QFE908980 (recommended).

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) 3rd Party adapters require HP drivers and firmware.

Windows (32-bit) - Continued

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Fibre Host Bus Adapters [1, 2] **HP Branded / 3rd Party**						
FCA2355 / Emulex LP9002DC (2G)						
FW	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
FCA2408 / Emulex LP982 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
Emulex Mezzanine Card for HP p-Class BladeSystem (2G)						
FW	1.91a2	1.91a2	1.91a2	1.91a2	1.91a2	1.91a2
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
QLogic Mezzanine Card for BL20p G2/G3 (2G)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.1.0.13	9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18	9.1.0.18	9.1.0.18		9.1.0.18	9.1.0.18
QLogic Balcony Card for BL25p (2G)						
FW	1.48	1.48	1.48	1.48	1.48	1.48
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.1.0.13	9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18	9.1.0.18	9.1.0.18		9.1.0.18	9.1.0.18
QLogic Balcony Card for BL30p (2G)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.0.2.11	9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18	9.1.0.18	9.1.0.18		9.0.2.16	9.1.0.18
QLogic Balcony Card for BL35p (2G)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.1.0.13	9.1.0.13
WIN 2003 StorPort Driver [3,4]	9.1.0.18	9.1.0.18	9.1.0.18		9.1.0.18	9.1.0.18
FCA2404 / Emulex LP9802 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
FCA2404DC / Emulex LP9802DC (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1	1.91a1
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0

NOTES:

1) Refer to EBS Design Guide for configuration rules and guidelines.

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

3) Requires updated Storport.sys QFE891793 (minimum) or QFE908980 (recommended).

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

Windows (32-bit) - Continued

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Fibre Host Bus Adapters [1, 6]						
HP Branded / 3rd Party						
FCA2101 / Emulex LP952 (2G)						
FW	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [3,4]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
FCA2214DC / QLogic 2342 (2G)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.1.0.13	9.1.0.13
WIN 2003 StorPort Driver [7,8]	9.1.0.18	9.1.0.18	9.1.0.18		9.1.0.18	9.1.0.18
FCA2214 / QLogic 2340 (2G)						
FW	1.45	1.45	1.45	1.45	1.45	1.45
WIN 2000/2003 SCSIport Driver	9.1.0.13	9.1.0.13	9.1.0.13	9.0.2.11	9.1.0.13	9.1.0.13
WIN 2003 StorPort Driver [7,8]	9.1.0.18	9.1.0.18	9.1.0.18		9.1.0.18	9.1.0.18
KGPSA-CB / Emulex LP8000 (1G)						
FW	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0	3.93a0
WIN 2000/2003 SCSIport Driver	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9	5-5.20a9
WIN 2003 StorPort Driver [7,8]	5-1.11a0	5-1.11a0	5-1.11a0		5-1.11a0	5-1.11a0
Fibre Host Bus Adapters [1,9]						
3rd Party Drivers						
Emulex LP982 (Full-Port Driver)						
FW	1.01a2					1.01a2
WIN 2000/2003 Full-Port Driver	2.21a0					2.21a0
Disk Array Multipath Support [1]						
Secure Path for Windows	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1
Windows MPIO [5]	✓	✓	✓	✓	✓	✓
AutoPath for Windows 2000	2.01	2.01	2.01	2.01	2.01	2.01
AutoPath for Windows 2003		1.00	1.00		1.00	
High Availability [2]						
Windows (MSCS)	✓[3]	✓	✓	✓[10]	✓[4]	✓

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 on Windows 2000 only.

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.

6) 3rd Party adapters require HP drivers and firmware.

7) Requires updated Storport.sys QFE891793 (minimum) or QFE908980 (recommended).

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

9) Supported for tape connections only.

10) Not supported with TSM 5.3.x.

Windows (Integrity)

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
Windows Server 2003 (64-bit)	sp1	sp1	sp1	sp1		sp1
Servers						
HP Integrity Superdome and Mid-Range (rx7000-rx8000, Integrity)	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx5000, Integrity)	✓	✓	✓	✓		✓
Fibre Host Bus Adapters [4, 7]						
HP Branded / 3rd Party						
FC2243 / Emulex LP11002 (4G)						
FW			2.10a7			2.10a7
WIN 2003 SCSIport Driver			6-5.20a9			6-5.20a9
WIN 2003 StorPort Driver [5, 8]			6-1.10a4			6-1.10a4
FC2143 / Emulex LP1150 (4G)						
FW			2.10a7			2.10a7
WIN 2003 SCSIport Driver			6-5.20a9			6-5.20a9
WIN 2003 StorPort Driver [5, 8]			6-1.10a4			6-1.10a4
AB466A / Emulex LP1050DC (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1		1.91a1
WIN 2003 SCSIport Driver	6-5.20a9	6-5.20a9	6-5.20a9	6-5.20a9		6-5.20a9
WIN 2003 StorPort Driver [5, 8]	6-1.10a4	6-1.10a4	6-1.10a4			6-1.10a4
AB467A / Emulex LP1050 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1		1.91a1
WIN 2003 SCSIport Driver	6-5.20a9	6-5.20a9	6-5.20a9	6-5.20a9		6-5.20a9
WIN 2003 StorPort Driver [5, 8]	6-1.10a4	6-1.10a4	6-1.10a4			6-1.10a4
A7298A / Emulex LP982 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1		1.91a1
WIN 2003 SCSIport Driver	6-5.20a9	6-5.20a9	6-5.20a9	6-5.20a9		6-5.20a9
WIN 2003 StorPort Driver [5, 8]	6-1.10a4	6-1.10a4	6-1.10a4			6-1.10a4
AB232A / Emulex LP9802 (2G)						
FW	1.91a1	1.91a1	1.91a1	1.91a1		1.91a1
WIN 2003 SCSIport Driver	6-5.20a9	6-5.20a9	6-5.20a9	6-5.20a9		6-5.20a9
WIN 2003 StorPort Driver [5, 8]	6-1.10a4	6-1.10a4	6-1.10a4			6-1.10a4
Disk Array Multipath Support [4]						
Secure Path for Windows	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1	4.0C SP2-1		4.0C SP2-1
Windows MPIO [6]	✓	✓	✓	✓		✓
AutoPath for Windows 2003			1.00			
High Availability [3]						
Windows (MSCS)				✓		✓

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as LAN clients.

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) Please reference ISV application installation/support 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) 3rd Party adapters require HP drivers and firmware.

8) Requires updated Storport.sys QFE891793 (minimum) or QFE908980 (recommended).

Windows (x64)

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
Windows Server 2003 x64 Edition		sp1				
Windows Server 2003 R2 x64 Edition		✓				
Servers						
HP ProLiant		✓				
HP ProLiant Blade Server		✓				
Fibre Host Bus Adapters [4,5]						
HP Branded / 3rd Party						
A7387A / Emulex LP1050DC						
FW		1.91a1				
WIN 2003 StorPort Driver [6, 7]		7-1.11a0				
A7388A / Emulex LP1050						
FW		1.91a1				
WIN 2003 StorPort Driver [6, 7]		7-1.11a0				
FCA2408 / Emulex LP982						
FW		1.91a1				
WIN 2003 StorPort Driver [6, 7]		7-1.11a0				
FCA2404DC / Emulex LP9802DC						
FW		1.91a1				
WIN 2003 StorPort Driver [6, 7]		7-1.11a0				
FCA2404 / Emulex LP9802						
FW		1.91a1				
WIN 2003 StorPort Driver [6, 7]		7-1.11a0				
Disk Array Multipath Support [4]						
Windows MPIO		✓				
High Availability [3]						
Windows (MSCS)		✓				

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as LAN clients.

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) Requires updated Storport.sys QFE903081 (minimum) or QFE908980 (recommended).

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

LINUX (32-bit) [4]

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1,2]						
Red Hat Enterprise Linux [AS/ES] 2.1 (32-bit)	✓	✓	✓	✓		✓
Red Hat Enterprise Linux [AS/ES/WS] 3.0 (32-bit)	✓	✓	✓	✓		✓
Red Hat Enterprise Linux [AS/ES/WS] 4.0 (32-bit)		✓		✓		✓
United Linux 1.0/SuSE SLES 8 (32-bit)	✓	✓	✓	✓		✓
SuSE SLES 9 (32-bit)	✓	✓		✓		✓
Servers						
HP ProLiant	✓	✓	✓	✓		✓
HP ProLiant Blade Server	✓	✓	✓	✓		✓
HP NetServer	✓	✓	✓	✓		✓
Third Party X86	✓	✓	✓	✓		✓
Fibre Host Bus Adapters [3,5]						
HP Branded / 3rd Party						
FC1142SR / QLogic QLE2460 (4G)						
BIOS						1.06
Red Hat Enterprise Linux 3.0 driver						7.07.03
Red Hat Enterprise Linux 4.0 driver						8.01.03
United Linux 1.0/SuSE SLES 8 driver						7.07.03
SuSE SLES 9 driver						8.01.03
FC1242SR DC / QLE2462 (4G)						
BIOS						1.06
Red Hat Enterprise Linux 3.0 driver						7.07.03
Red Hat Enterprise Linux 4.0 driver						8.01.03
United Linux 1.0/SuSE SLES 8 driver						7.07.03
SuSE SLES 9 driver						8.01.03
FCA2214DC / QLogic 2342 (2G)						
FW	1.45	1.45	1.45	1.45		1.45
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03
FCA2214 / QLogic 2340 (2G)						
FW	1.45	1.45	1.45	1.45		1.45
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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.

LINUX (32-bit) [4] - Continued

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Fibre Host Bus Adapters [3, 5]						
HP Branded / 3rd Party						
QLogic Mezzanine Card for BL20p G2/G3 (2G)						
FW	1.45	1.45	1.45	1.45		1.45
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03
QLogic Balcony Card for BL25p (2G)						
FW	1.48	1.48		1.48		1.48
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03		7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03		7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03		7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03
QLogic Balcony Card for BL30p (2G)						
FW	1.45	1.45	1.45	1.45		1.45
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.05.00	7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03
QLogic Balcony Card for BL35p (2G)						
FW	1.45	1.45		1.45		1.45
Red Hat Advanced Server 2.1 driver	7.07.03	7.07.03		7.07.03		7.07.03
Red Hat Enterprise Linux 3.0 driver	7.07.03	7.07.03		7.07.03		7.07.03
Red Hat Enterprise Linux 4.0 driver		8.01.03		8.01.03		8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03		7.07.03		7.07.03
SuSE SLES 9 driver	8.01.03	8.01.03		8.01.03		8.01.03
QLA2200 (1G)						
FW	1.76		1.76			
Linux Driver (Intel)	6.0.1c		6.0.1c			
Disk Array Multipath Support [3]						
Secure Path for Linux	3.0C		3.0C SP1	3.0C SP1		3.0C SP2
QLogic Native Multi-Path for Linux (2.4 kernel)	7.07.03	7.07.03	7.07.03	7.07.03		7.07.03
QLogic Native Multi-Path for Linux (2.6 kernel)		8.01.03		8.01.03		8.01.03

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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.

LINUX (Integrity) [3]

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
Red Hat Enterprise Linux [AS/ES] 2.1 (64-bit)	✓		✓			
Red Hat Enterprise Linux [AS/ES/WS] 3.0 (64-bit)	✓		✓			
Red Hat Enterprise Linux [AS/ES/WS] 4.0 (64-bit)	✓	✓				✓
United Linux 1.0/SuSE SLES 8 (64-bit)	✓	✓	✓			
SuSE SLES 9 (64-bit)		✓				✓
Servers						
HP Integrity Superdome and Mid-Range (rx7000-rx8000, Integrity)	✓	✓	✓			✓
HP Integrity Entry-Level (rx1000-rx5000, Integrity)	✓	✓	✓			✓
Fibre Host Bus Adapters [4]						
FC2243 / Emulex LP11002 (4G)						
Firmware	2.10a7					2.10a7
Red Hat Enterprise Linux 4.0 driver	8.01.03					8.01.03
SuSE SLES 9 driver						
FC2143 / Emulex LP1150 (4G)						
Firmware	2.10a7					2.10a7
Red Hat Enterprise Linux 4.0 driver	8.01.03					8.01.03
SuSE SLES 9 driver						
A6826A (2G)						
EFI	1.42	1.42	1.42			1.42
Red Hat Advanced Server 2.1 driver	7.07.03		7.07.03			
Red Hat Enterprise Linux 3.0 driver	7.07.03		7.07.03			
Red Hat Enterprise Linux 4.0 driver	8.01.03	8.01.03				8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.07.03			
SuSE SLES 9 driver		8.01.03				8.01.03
A7538A (2G)						
EFI	1.42	1.42	1.42			1.42
Red Hat Advanced Server 2.1 driver	7.07.03		7.07.03			
Red Hat Enterprise Linux 3.0 driver	7.07.03		7.07.03			
Red Hat Enterprise Linux 4.0 driver	8.01.03	8.01.03				8.01.03
United Linux 1.0/SuSE SLES 8 driver	7.07.03	7.07.03	7.07.03			
SuSE SLES 9 driver		8.01.03				8.01.03
Disk Array Multipath Support [4]						
Secure Path for Linux	3.0C		3.0C SP1			3.0C SP2
QLogic Native Multi-Path for Linux (2.4 kernel)	7.07.03	7.07.03	7.07.03			
QLogic Native Multi-Path for Linux (2.6 kernel)	8.01.03	8.01.03				8.01.03

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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.

Solaris

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1,2]						
Solaris 8	✓	✓	✓	✓		✓
Solaris 9	✓	✓	✓	✓		✓
Solaris 10		✓				✓
Servers						
Sun UltraSPARC	✓	✓	✓	✓		✓
Sun Sun Fire	✓	✓	✓	✓		✓
Fibre Host Bus Adapters [3]						
FCA2257P (2G - PCI)						
Fcode	2.00.05	2.00.05	2.00.05	2.00.05		2.00.05
Solaris Driver	4.13.01	4.13.01	4.13.01	4.13.01		4.13.01
FCA2257C (1G - PCI)						
Fcode	1.18.5	1.18.5	1.18.5	1.18.5		1.18.5
Solaris Driver	4.13.01	3.26	4.13.01	4.13.01		4.13.01
FCA2257S (1G - Sbus)						
Fcode	1.18.3	1.18.3	1.18.3	1.18.3		1.18.3
Solaris Driver	4.13.01	3.26	4.13.01	4.13.01		4.13.01
SG-XPCI2FC-QF2 (X6768A) (2G - PCI-X)						
Solaris Driver	Native [4,5]	Native	Native	Native [4]		Native
SG-XPCI1FC-QF2 (X6767A) (2G - PCI-X)						
Solaris Driver	Native [4,5]	Native	Native	Native [4]		Native
FCA2684DC/Emulex LP10000DC (2G - PCI-X)						
FW		1.90a4	1.90a4	1.90a4		1.90a4
Solaris Driver		6.01f	6.01f [4]	6.01f [4]		6.01f
FCA2684/Emulex LP10000 (2G - PCI-X)						
FW		1.90a4	1.90a4	1.90a4		1.90a4
Solaris Driver		6.01f	6.01f [4]	6.01f [4]		6.01f
Emulex LP9002L (2G - PCI)						
FW			3.92a2			3.92a2
Solaris Driver			6.01f			5.01E [6]

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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) Not supported for robot control.
6) Solaris 8 support only.

Solaris - Continued

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Disk Array Multipath Support [1]						
Secure Path for Solaris	3.0D	3.0D	3.0D	3.0D		3.0D
Solaris MpXIO [3]						✓
High Availability [2]						
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 9 only.

Tru64

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
Tru64 5.1A [9]	5.1A pk6	5.1A pk6 [7]	5.1A pk6			5.1A pk6
Tru64 5.1B [9]	V5.1B-2		V5.1B-3			V5.1B-3
Servers						
HP AlphaServer	✓	✓	✓			✓
Fibre Host Bus Adapters [5]						
FCA2684 and FCA2684 DC (2G - PCI-X)						
FW	1.90a4		1.90a4			1.90a4
Tru64 Driver	2.14		2.17			2.17
FCA2354 (2G)						
FW	3.92a2	3.92a2	3.92a2			3.92a2
Tru64 Driver	2.14	2.14	2.17			2.17
FCA2384 (2G - PCI-X)						
FW	1.90a4		1.90a4			1.90a4
Tru64 Driver	2.14		2.17			2.17
KGPSA -CA (1G)						
FW	3.92a2	3.92a2	3.92a2			3.92a2
Tru64 Driver	2.14	2.14	2.17			2.17
Disk Array Multipath Support [5]						
Tru64 Multipath		Native	Native			Native
High Availability [4]						
Tru64 (TruCluster)			✓			✓

OVMS

	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
OpenVMS 7.3-1 [3, 6, 8, 9]	✓					
OpenVMS 7.3-2 [6, 8, 9]	✓					
Servers						
HP AlphaServer	✓					
Fibre Host Bus Adapters [5]						
FCA2354 (2G)						
FW	3.92a2					
OVMS Driver	Native					
FCA2384 (2G - PCI-X)						
FW	1.90a4					
OVMS Driver	Native					

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as LAN clients.
2) Please reference your ISV support matrices for supported application and operating system version compatibility.
3) Supported only with the original version 7.3-1 mk driver (SYS$MKDRIVER.EXE)
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) OpenVMS supported in switched fabric configurations only.

AIX

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
AIX 5.1L	✓ [3, 6]	✓	✓ [5]	✓		✓
AIX 5.2	✓ [3, 6]	✓	✓	✓		✓
AIX 5.3	✓ [3, 6]	✓	✓	✓		✓
Servers						
IBM RS/6000	✓	✓	✓	✓		✓
IBM pSeries	✓	✓		✓		✓
Fibre Host Bus Adapters [3, 4]						
A7539A (Cambex PC2000) (2G)						
AIX Driver w/o Secure Path	1.5.26.0	1.5.26.0	1.5.26.0			1.5.26.0
AIX Driver w/ Secure Path	1.5.25.3	1.5.25.3	1.5.25.3			1.5.25.3
IBM 6228 (2G)						
AIX Driver	Native	Native	Native	Native		Native
IBM 6239 (2G)						
AIX Driver	Native [7]	Native [8]	Native [7]	Native [8]		Native [8]
IBM 5716 (2G)						
AIX Driver	Native [9]	Native [8]	Native [9]	Native [8]		Native [8]
Cambex PC1000 (1G)						
AIX Driver w/o Secure Path	1.5.19		1.5.26.0	1.5.26.0		1.5.26.0
AIX Driver w/ Secure Path	1.5.25.3		1.5.25.3	1.5.25.3		1.5.25.3
Disk Array Multipath Support [4]						
Secure Path for AIX	2.0D SP2	2.0D SP2	2.0D SP2	2.0D SP2		2.0D SP2
AIX MPIO				✓		✓

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as 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) DLT8000 products not supported

6) AIX devices must be manually configured.

7) Supported with AIX 5.2 only.

8) Supported with AIX 5.2 and 5.3 only.

9) Supported with AIX 5.3 only

NetWare

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
Operating Systems [1, 2]						
NetWare 5.1	5.1 sp8	5.1 sp7 [3]			5.1 sp8	
NetWare 6.0	6.0 sp5	6.0 sp5 [3]			6.0 sp5	
NetWare 6.5	6.5 sp3	6.5 sp2 [3]			6.5 sp4	
Servers						
HP ProLiant [5]	✓	✓			✓	
HP ProLiant Blade Server [5]	✓	✓			✓	
HP NetServer	✓	✓			✓	
Third Party X86	✓	✓			✓	
Fibre Host Bus Adapters [3, 5]						
FCA2214 (FCA2210) / QLA2340 (2G)						
FW	1.45	1.45			1.45	
NetWare Driver	6.80h [9]	6.51b			6.80h	
FCA2214DC / QLA2342 (2G)						
FW	1.45	1.45			1.45	
NetWare Driver	6.80h [9]	6.51b			6.80h	
64-bit / 66 MHz PCI to FC HBA (1G) [6, 7, 8]						
NetWare Driver	2.52 [9]				2.52	
32-bit / 33 MHz HBA (1G) [6, 7, 8]						
NetWare Driver	2.52 [9]				2.52	
Disk Array Multipath Support [5]						
Secure Path for NetWare [10]	3.0C SP2.1	3.0C SP2			3.0C SP2.1	
MPIO					✓	
High Availability [4]						
NetWare 5.1 (NWCS)					✓	
NetWare 6.0 (NWCS)					✓	
NetWare 6.5 (NWCS)					✓	

NOTES:

1) Other Operating Systems may be supported within EBS by the respective ISVs as LAN clients.

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) COMPAQ HBAs

7) NetWare 5.1 and 6.0 support only.

8) Hetergeneous Windows and NetWare configurations require FCA-2210 HBA for access to shared tape.

9) Support is limited to single path configurations only

10) MSA1000 and EVA require FCA-2210 HBA with a minimum Secure Path version of 3.0c. HSG80 arrays with FCA-2210 HBA require a minimum Secure Path version of 3.0c SP2.

RAID Arrays

SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
RAID Arrays						
XP 12000 [1]	✓	✓	✓	✓	✓	✓
XP 10000 [1]	✓	✓	✓	✓	✓	✓
XP 1024/128 [1]	✓	✓	✓	✓	✓	✓
XP 48/512 [1]	✓	✓	✓	✓	✓	✓
Zero Downtime with XP	✓					
Instant Recovery with XP	✓					
Enterprise Virtual Array EVA 8000 [1]	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array EVA 6000 [1]	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array EVA 4000 [1]	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array EVA 5000 [1,3,7]	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array EVA 3000 [1,3,7]	✓	✓	✓	✓	✓	✓
VA 7410/7110 [1,6]	✓	✓	✓		✓	✓
VA 7400/7100 [1,6]	✓	✓	✓		✓	✓
EMA 16000 [1]	✓	✓	✓	✓	✓	✓
EMA 12000/8000 [1]	✓	✓	✓	✓	✓	✓
MSA1500 [1]	✓	✓	✓	✓	✓	✓
MSA1000 Small Business SAN Kit	✓[4]	✓[5]			✓[5]	
MSA1000 [2]	✓	✓	✓	✓	✓	✓

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 Infrastructure 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) VA7xxx arrays require separate HBA's for disk and tape.
7) Supported with VCS 3.X and 4.X.

Infrastructure

SAN Support	Supported Release	e2400-FC 2G Interface Controller	E2400-160 FC Interface Controller	NSR E1200-160	NSR E2400	NSR E1200	NSR M2402	NSR N1200
SAN Switches[1]								
McData 4Gb SAN Switch for HP p-Class BladeSystem	5.2.2.15.00	✓	✓	✓	✓	✓	✓	✓
Director Switch 2/140	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
Director Switch 2/64	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
Edge Switch 2/32	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
Edge Switch 2/24	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
Edge Switch 2/16	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
Edge Switch 2/12	08.01.00-14	✓	✓	✓	✓	✓	✓	✓
SAN Director 4/256	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 4/32	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 4/16	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 4/8	5.0.1d	✓	✓	✓	✓	✓	✓	✓
Brocade 4Gb SAN Switch for HP p-Class BladeSystem	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Director 2/128	5.0.1d	✓	✓	✓	✓	✓	✓	✓
Core Switch 2/64	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/32	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/16N	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/16V	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/16	3.2.1	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/8V	5.0.1d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/8	3.2.1	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/16-EL	3.2.1	✓	✓	✓	✓	✓	✓	✓
SAN Switch 2/8-EL	3.2.1	✓	✓	✓	✓	✓	✓	✓
SAN Switch 16	2.6.2d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 8	2.6.2d	✓	✓	✓	✓	✓	✓	✓
SAN Switch16EL	2.6.2d	✓	✓	✓	✓	✓	✓	✓
SAN Switch 8EL	2.6.2d	✓	✓	✓	✓	✓	✓	✓
FC Switch 16B	3.2.1	✓	✓	✓	✓	✓	✓	✓
FC Switch 8B	3.2.1	✓	✓	✓	✓	✓	✓	✓
MSA SAN Switch 2/8	3.2.1	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9506	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9509	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9216	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9120	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9140	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9216a	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Cisco MDS 9216i	2.1(2b)	✓	✓	✓	✓	✓	✓	✓
Multi-Protocol Routers and Gateways[1]								
Multi-Protocol Router[2,3]	7.4.0d	✓	✓	✓	✓	✓	✓	✓
IP Storage Router 2122-2[4]	3.4.5c	✓	✓	✓	✓	✓	✓	✓

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.

ProLiant Storage Servers (NAS) and ProLiant Data Protection Storage Servers

DAS, DAF, and SAN Support	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
EFS Clustered Gateway (LINUX)	✓					
DL380 G4 Data Protection Storage Server	✓				✓	✓[1]
ML310 G2 Data Protection Storage Server	✓				✓	
DL100 G2 Data Protection Storage Server [2]	✓				✓	✓[1]
DL585 Storage Server	✓	✓			✓	
DL380 G4 Storage Server	✓	✓	✓		✓	✓[1]
ML370 G4 Storage Server	✓	✓			✓	
ML350 G4p Storage Server	✓	✓			✓	✓[1]
ML350 G4 Storage Server	✓	✓			✓	✓[1]
ML310 G2 Storage Server	✓				✓	
ML110 G2 Storage Server [2]	✓	✓			✓	
NAS 9000s	✓	✓	✓		✓	✓[1]
NAS 4000s	✓	✓	✓		✓	✓[1]
NAS 8000	✓					
NAS e7000	✓	✓	✓	✓	✓	✓
NAS 1500s [2]	✓	✓			✓	
NAS 500s [2]	✓	✓			✓	
NAS 2000s [2]	✓	✓			✓	
NAS 1200s [2]	✓	✓			✓	
NAS B3000	✓	✓	✓	✓	✓	✓
NAS B2000	✓	✓	✓	✓	✓	✓

NOTES:
1) Requires NetBackup 5.0 MP2 or later.
2) Tape connectivity via direct–attach SCSI only.

SCSI Host Bus Adapters

HP Branded ProLiant and HP-9000 SCSI Host Bus Adapters [2, 3]

Windows	HP-UX	LINUX	Tru64	NetWare
268351-B21 Ultra320, LVD, Dual Channel, VHDCI	AB290A Ultra320, LVD, Dual Channel, VHDCI	268351-B21 Ultra320, LVD, Dual Channel, VHDCI	3X-KZPCA-AA Ultra80, LVD, Single Channel, HD68	284688-B21 Ultra160, LVD, Dual Channel, VHDCI
374654-B21[4] Ultra320, LVD, Single Channel, VHDCI	A7173A Ultra320, LVD, Dual Channel, VHDCI	374654-B21[4] Ultra320, LVD, Single Channel, VHDCI	3X-KZPCA-EA Ultra80, LVD, Dual Channel, HD68	129803-B21 Ultra160, LVD, Dual Channel, VHDCI
284688-B21 Ultra160, LVD, Dual Channel, VHDCI	A6829A Ultra160, LVD, Dual Channel, VHDCI	284688-B21 Ultra160, LVD, Dual Channel, VHDCI	3X-KZPCA-EB Ultra80, LVD, Dual Channel, HD68	154457-B21 Ultra160, LVD, Single Channel, HD68
C7474A Ultra160, LVD, Single Channel, VHDCI	A6828A Ultra160, LVD, Single Channel, VHDCI	C7474A Ultra160, LVD, Single Channel, VHDCI		C7474A Ultra160, LVD, Single Channel, VHDCI
154457-B21 Ultra160, LVD, Single Channel, HD68	A5149A Ultra80, LVD, Single Channel, VHDCI	154457-B21 Ultra160, LVD, Single Channel, HD68		348757-B21 Ultra80, LVD, Dual Channel, VHDCI
129803-B21 Ultra160, LVD, Dual Channel, VHDCI	A5150A Ultra80, LVD, Dual Channel, VHDCI	129803-B21 Ultra160, LVD, Dual Channel, VHDCI		
348757-B21 Ultra80, LVD, Dual Channel, VHDCI	A4999A[1] Ultra80, LVD, Single Channel, VHDCI			
	A5838A Ultra80, LVD, Dual Channel, VHDCI			
	A2679A Ultra80, LVD, Single Channel, HD68			
	A4974A[1] Ultra, SE, Single Channel, HD68			

NOTES:
1) Supported on HP-UX Workstations only
2) Refer to the Server QuickSpecs to determine which SCSI HBAs are supported
3) Third party X86 servers supported with HP-Branded adapters only.
4) Autoloader support only

SCSI Host Bus Adapters - Continued

HP Branded Integrity SCSI Host Bus Adapters, Integrity 64-bit [1]

Windows	HP-UX	LINUX
A7173A Ultra 320, LVD, Dual Channel, VHDCI	A7173A Ultra320, LVD, Dual Channel, VHDCI	A7173A Ultra 320, LVD, Dual Channel, VHDCI
A7059A Ultra160, LVD, Single Channel, VHDCI	AB290A Ultra 320, LVD, Dual Channel, VHDCI	A7059A Ultra160, LVD, Single Channel, VHDCI
A7060A Ultra160, LVD, Dual Channel, VHDCI	A6829A Ultra160, LVD, Dual Channel, VHDCI	A7060A Ultra160, LVD, Dual Channel, VHDCI
	A6828A Ultra160, LVD, Single Channel, VHDCI	
	A5149A Ultra80, LVD, Single Channel, VHDCI	
	A5150A Ultra80, LVD, Dual Channel, VHDCI	
	A5838A Ultra80, LVD, Dual Channel, VHDCI	

NOTES:

1) Refer to the Server QuickSpecs to determine which SCSI HBAs are supported

SCSI Host Bus Adapters - Continued

Third Party SCSI HBA and Integrated SCSI Controllers [1,2]

Windows	Linux	NetWare
Adaptec 29320 Ultra320, LVD, Single Channel	Adaptec 29320 Ultra320, LVD, Single Channel	Adaptec 29320 Ultra320, LVD, Single Channel
Adaptec 29160 Ultra160, LVD, Single Channel	Adaptec 29160 Ultra160, LVD, Single Channel	Adaptec 29160 Ultra160, LVD, Single Channel
Adaptec 39160 Ultra160, LVD, Dual Channel	Adaptec 39160 Ultra160, LVD, Dual Channel	Adaptec 39160 Ultra160, LVD, Dual Channel
Symbios/LSI 22915 Ultra160, LVD, Dual Channel		
Symbios/LSI 22903 Ultra160, LVD, Dual Channel		
ProLiant Integrated SCSI Ultra160, LVD, Single and Dual Channel		
Symbios/LSI 8951 Ultra80, LVD, Single Channel		

NOTES:

1) For Solaris and AIX configurations, EBS supports all SCSI HBA's supported by the server hardware manufacturer.
   Refer to the server manufacturer's web site for supported HBA/server platform/operating system combinations

2) Third Party SCSI HBA support is for HP servers only

Storage Software

	HP Data Protector	CA BrightStor ARCserve	EMC Legato NetWorker	IBM Tivoli Storage Manager	Symantec Backup Exec	Symantec NetBackup
OpenView						
Storage Virtual Replicator		4.1.1	4.1.1	4.1.1	4.1.1	4.1.1
OV-SAM	3.2	3.2	3.2	3.2	3.2	3.2
Zero Downtime with XP	✓					
Instant Recovery with XP	✓					
StorageWorks						
Command View TL	1.6.00	1.6.00	1.6.00	1.6.00	1.6.00	1.6.00
Continuous Access		✓	✓	✓	✓	✓
Business Copy EVA	✓	✓	✓	✓	✓	✓
Business Copy XP	✓					
Tools and Utilities						
Smart Start	7.40	7.40	7.40	7.40	7.40	7.40
Systems Insight Manager (SIM)	5.0	5.0	5.0	5.0	5.0	5.0
Insight Manager Agents	7.40	7.40	7.40	7.40	7.40	7.40

Backup Application Details

Name	Latest Tested Version	Application Supported Devices List	Recommended Tape Driver
HP OpenView Storage Data Protector	5.5	Data Protector Supported Devices	Use Native Drivers
Computer Associates BrightStor ARCserve	11.5	ARCserve Supported Devices	CABA Driver for Windows
Computer Associates BrightStor ARCserve (NetWare and Tru64)	11.1	ARCserve Supported Devices	
EMC Legato NetWorker	7.2	NetWorker Supported Devices	HP Driver for Windows
IBM Tivoli Storage Manager	5.3.2	TSM Supported Devices	Tivoli Driver for Windows
Symantec Backup Exec for Windows Servers	10.1.5629	Backup Exec Supported Devices	BE Driver for Windows
Symantec Backup Exec for NetWare	9.2.1391	Backup Exec Supported Devices	BE Driver for Netware
Symantec NetBackup	6.0	NetBackup Supported Devices	HP or NBU Tape Driver for Windows

IMPORTANT: Consult with your application vendor for minimum application versions, patches, builds, and/or drivers for support of your HP tape automation or HP virtual library products.

NOTES:
1) All ISV certifications have been completed with a minimum configuration of 16 servers by 16 drives. This does not imply any limitations of the backup and restore application or HP StorageWorks SAN products. Refer to the application vendor's website or representative for maximum configuration details.

Legacy Device Support

Device Name	Last EBS Compatibility Matrix Where Device Was Listed[1]
TL895	December 2002
TL891DLX	December 2002
ESL9326D	April 2002
TL891D	April 2002
DLT 35/70	April 2002
Modular Data Router (MDR)	February 2004
ESL 9326 DX	March 2005
ESL 9198 DLX	March 2005
MSL 5026 DLX	March 2005
SSL 2020 TL	March 2005
DLT 40/80	March 2005

NOTES:

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

Useful Links

Product Family	URL
EBS Home Webpage	http://www.hp.com/go/ebs
EBS Design Guide	http://h200001.www2.hp.com/bc/docs/support/SupportManual/c00190922/c00190922.pdf
EBS 1-2-3	http://h18000.www1.hp.com/products/storageworks/ebs/ebs123.html
EBS Example Configurations	http://h200005.www2.hp.com/bc/docs/support/SupportManual/c00375285/c00375285.pdf
Tape Systems	http://www.hp.com/go/tape
Interconnects	http://h18006.www1.hp.com/storage/saninfrastructure.html
RAID Arrays	http://h18006.www1.hp.com/storage/arraysystems.html
OpenView Storage	http://h18006.www1.hp.com/storage/software.html
Data Protector	http://www.hp.com/go/dataprotector
Storage Media	http://h18006.www1.hp.com/storage/storagemedia.html
Firmware & Driver Downloads	http://welcome.hp.com/country/us/en/support.html
Windows OS/ProLiant Server Support Matrix	http://h10018.www1.hp.com/wwsolutions/windows/index-all.html
Linux OS/ProLiant Server Support Matrix	http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html
NetWare OS/ProLiant Server Support Matrix	http://h10018.www1.hp.com/wwsolutions/novell/index-all.html
IT Resource Center Website	http://itrc.hp.com
Performance and Troubleshooting Support	http://www.hp.com/support/pat
Network Services - Backup and Recovery	http://h20219.www2.hp.com/services/cache/10819-0-0-225-121.aspx
HP StorageWorks SAN Design Reference Guide	http://h20000.www2.hp.com/bizsupport/TechSupport/DocumentIndex.jsp?contentType=SupportManual&locale=en_US&docIndexId=179911&taskId=101&prodTypeId=12169&prodSeriesId=406734

Advisories

Date	Description	Number
12/12/05	Symantec Backup Exec May Report "Drive Serialization" for HP EML and ESL E Tape Libraries Configured for SCSI-over-Internet Protocol (SIPP) - Requires HP Secure Manager Partitioning	C00564129
10/29/05	Tapes automatically labeled as slots with chance of duplicates in Ultrium 232, 448 and 960 1/8 Autoloaders	OT050930_CW02
09/30/05	Network Storage Routers have Limited Initiators for Single and Dual Port Routers	c00492083
09/26/05	Tape Devices Not Discovered and Configured Across Server Reboots on Linux Red Hat	OT050715_CW01
09/13/05	HP StorageWorks Tape Drives and Libraries May Experience Performance Issues and/or Failures with Windows 2003 OS (SP1)	OT050906_CW01
08/29/05	Enterprise Backup Solution (EBS) Configurations with Tivoli Storage Manager (TSM) 5.3.0.0 to 5.3.1.1 May Not Access All Tape Load Ports on ESL E-Series With Cross Link Kit	OT050822_CW01
07/11/05	Upgrade to ESL-e Library Firmware v3.40 Recommended for Robot 24-Day Unresponsive Issue	OT050701_CW02
06/20/05	Tape solutions with Tivoli Storage Manager (TSM) Server 5.3.0.0 to 5.3.1.1, Linux IA32 RHEL3 or SLES 8/9, and HP tape libraries with Ultrium 460 at 59W firmware fail on labeling, backup, and restore.	OT050526_CW02
06/08/05	HP SDLT and DLT Tape Drive Change Media Notification.	OT050606_CW01
05/12/05	Network Storage Routers (NSR)/Interface Controllers (IC) Switch Login Issue with M-Series Switches on 6.x Firmware	OT050324_CW01
04/22/05	Tape Backup In StorageWorks Enterprise Backup Solution (EBS) Environment From ProLiant Server May Not Complete If Insight Management Storage Agents Loaded	ES040611_CW01
04/07/05	HP-UX Tachlite HBA Driver Causes SAN Tape Backups to Fail with Bus Reset when Background Applications, Such as OV-SAM, are Running	OE041223_CW01
04/07/05	Enterprise Backup Solution (EBS) support for QLogic Serverless backup configurations is restricted to driver version 8.2.0.73	OA050126_CW01
03/29/05	File Library Issue on NetWare Agent	OS050322_CW01
02/15/05	SDLT 600 Drives Not Detected or Detected as Robotics with Interface Manager < I142 and Command View ESL < 1.4.02	OT050127_CW07
02/03/05	Unload to source slot may not work after power-cycling the ESL-e	OT050124_CW02
01/21/05	Some tape devices may not be presented when the QLogic fibre channel HBA driver for Linux is installed in failover mode	OT050112_CW01
01/20/05	No Detected Fibre-Attached Tape Drive Devices, But Many Hidden	OT041223_CW01
01/05/05	Shared Tape Configurations in a SAN (EBS) with Legato Networker, Sun Solaris 9, and Sun SG-XPCI2FC-QF2 HBA`s require Additional Manual Configuration Steps	OS040917_CW01

To view these advisories do the following:

  1) Click on the advisory number above or go to the IT Resource Center at http://itrc.hp.com (**NOTE**: To review these 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.

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.