



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

June 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](#).

| Topic | Page |
|------------------------------------------|-------------|
| How To Use This Document | 3 |
| Sample Page Layout | 4 |
| Libraries and Applications | 5 |
| Backup Application Details | 6 |
| Advanced Library Features | 7 |
| Libraries and Interface Controllers | 8 |
| Interface Controllers | 10 |
| HP-UX (PA-RISC) | 11 |
| HP-UX (Integrity) | 12 |
| Windows (32-bit) | 12 |
| Windows (Integrity) | 16 |
| Windows (x64) | 17 |
| Linux (32-bit) | 18 |
| Linux (Integrity) | 20 |
| Linux (x64) | 21 |
| Solaris | 22 |
| Tru64/OVMS | 24 |
| AIX | 25 |
| NetWare | 26 |
| RAID Arrays | 27 |
| Infrastructure | 28 |
| ProLiant Storage Servers (NAS) | 29 |
| ProLiant Data Protection Storage Servers | 29 |
| SCSI HBAs | 30 |
| Storage Software | 33 |
| Legacy Device Support | 34 |
| Useful Links | 35 |
| Advisories | 36 |

How To Use This Document

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. 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 Automation Compatibility. These applications directly communicate and perform I/O with HP tape automation products. See below for more information on how these applications are tested:

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 Automation Compatibility: Tape automation compatibility is verified and supported with these applications through a cooperative test effort with the software vendor. Tape automation support can be found in this document. Contact the software vendor for latest application version, patches/drivers, 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.

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 Backup App. Advanced Library Features Interface Controllers **HP-UX** Windows Linux Solaris
Tru64/OVMS AIX NetWare RAID Arrays Infrastructure NAS SCSI HBAs Storage Software 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 March 2006 Quality Pack March 2006 | HWE 11.23 May 2005 Quality Pack May 2005 | HWE 11.23 March 2006 Quality Pack March 2006 | HWE 11.23 May 2005 Quality Pack May 2005 | | HWE 11.23 March 2006 Quality Pack March 2006 |
| 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 | | | | | | |
| AB379A (4G) | | | | | | |
| FW | | | | | | |
| fcid Driver | | | Native | | | Native |
| AB378A (4G) | | | | | | |
| FW | | | 4.00.70 | | | 4.00.70 |
| fcid Driver | | | Native | | | Native |
| AB465A (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcid Driver | Native | Native | Native | Native | | Native |
| A9782 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcid Driver | Native | Native | Native | Native | | Native |
| A9784 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcid Driver | Native | Native | Native | Native | | Native |
| A6795A (2G) | | | | | | |
| FW | 1.10 | 1.10 | 1.10 | 1.10 | | 1.10 |
| fcid Driver | Native | Native | Native | Native | | Native |
| A6826A (2G) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcid 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 | | | |

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

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.

June 2006, v1.0

← Page 12 of 36 →

Matrix Version

Darkened section indicates environment currently not supported by application

Navigation buttons

Libraries and Applications

| DAF, SAN, and DAS Support ¹ | | HP Data Protector | CA BrightStor ARCserve | EMC Legato NetWorker | IBM Tivoli Storage Manager | Symantec Backup Manager | Symantec Backup Exec | HP Data Protector Express | ADIC StorNext | Attempo Time Navigator | BakBone NetVault | CommVault Qinetix Galaxy | EMC Retrospect | Syncsort Backup Express | XenData Archive Series | |
|------------------------------------------|----------------------|--------------------------------------------------------|------------------------|----------------------|----------------------------|-------------------------|----------------------|---------------------------|---------------------------------------------------|------------------------|------------------|--------------------------|----------------|-------------------------|------------------------|--|
| Enterprise Class Libraries | Firmware | Extended Solution Interoperability ¹ | | | | | | | Tape Automation Compatibility ¹ | | | | | | | |
| ESL E-Series | 4.60 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 FC | L26W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 460 | F59W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 460 FC | K42W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 600 | v40 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 160/320 | v85 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| EML E-Series | 1022 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 FC | L29S | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 460 FC | K4B0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| ESL 9000 Series ⁵ | 3.60 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 | G25W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 460 | F59W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 600 | v40 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 160/320 | v85 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Virtual Library Systems | | | | | | | | | | | | | | | | |
| VLS 6000 Series ³ | 1.0.13 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| VLS 1000i Series ⁸ | 2.6.0.226 | ✓ | ✓ | | | | ✓ | ✓ | | | | | | | | |
| Business Class Libraries | | | | | | | | | | | | | | | | |
| MSL 6000 Series | 5.16 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 | G25W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 460 | F59W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 600 | v40 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| MSL 4048 | 4.70 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 FC | L57W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 | G54W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 448 | S54W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| MSL 2024 | 2.40 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 FC | L57W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 960 | G54W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ultrium 448 | S54W | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Autoloaders ^{4,6} | Robot (Drive) | | | | | | | | | | | | | | | |
| 1/8 Tape Autoloader (Ultrium 960) | 1.50 (G54W) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| 1/8 Tape Autoloader (Ultrium 448) | 1.50 (S54W) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| 1/8 Tape Autoloader (Ultrium 232) | 1.50 (P54W) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| 1/8 Tape Autoloader (SDLT 160/320) | L12r (v85) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| 1/8 DLT Tape Autoloader (vs80) | 5E40 (v65) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Advanced Drive and Media Features | | | | | | | | | | | | | | | | |
| Ultrium 960 WORM ² | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| SDLT 600 WORM ² | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |

NOTES:

- 1) See "How To Use This Document" for description of support.
- 2) WORM (Write-Once, Read-Many) 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
- 5) Ultrium drives are not supported with ESL9198 and ESL9326 libraries

- 6) Refer to the EBS Design Guide for additional information on the use of native backup commands and programs.
- 7) Symantec Backup Exec 10.d requires the QLA4050C-CK or QLA4050C-BK PCI-X iSCSI Host Bus Adapter to be installed in each Windows server that will connect to the VLS1000i.
- 8) Supported with Windows 2003 (32-bit) only using the native Microsoft iSCSI initiator or QLogic 4050c iSCSI HBA.

Backup Application Details

| HP Automation Device | HP Data Protector | CA BrightStor ARCserve | EMC Legato NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec NetBackup |
|------------------------------------|-------------------------------------------------------------------------------------------------|------------------------|----------------------|----------------------------|----------------------|--------------------|
| Enterprise Class Libraries | ***HP tape and virtual libraries are supported as of the software version shown below*** | | | | | |
| ESL E-Series | 5.0 | 9.0 | 6.0 | 5.2 | 9.0 | 4.5 |
| EML E-Series | 5.1 | 9.0 | 7.0 | 5.3 | 10.0 | 5.0 |
| ESL 9000 Series | 5.0 | 9.0 | 6.0 | 5.1 | 9.0 | 4.5 |
| Virtual Library Systems | | | | | | |
| VLS 6000 Series | 5.1 | 11.1 | 7.0 | 5.3 | 10.0 | 5.0 |
| VLS 1000i Series | 5.5 | 11.5 | | | 10d | |
| Business Class Libraries | | | | | | |
| MSL 6000 Series | 5.0 | 9.0 | 6.0 | 5.2 | 9.0 | 4.5 |
| MSL 4048 | 5.5 | 11.1 | 7.0 | 5.3 | 10d | 6.0 |
| MSL 2024 | 5.1 | 11.1 | 7.0 | 5.3 | 10d | 6.0 |
| Autoloaders | | | | | | |
| 1/8 Tape Autoloader (Ultrium 960) | 5.1 | 9.0 | 7.0 | 5.3 | 10.0 | 5.0 |
| 1/8 Tape Autoloader (Ultrium 448) | 5.1 | 11.1 | 7.0 | 5.3 | 10.0 | 5.0 |
| 1/8 Tape Autoloader (Ultrium 232) | 5.1 | 11.1 | 7.0 | 5.3 | 10.0 | 5.0 |
| 1/8 Tape Autoloader (SDLT 160/320) | 5.0 | 9.0 | 7.0 | 5.1 | 9.0 | 4.5 |
| 1/8 DLT Tape Autoloader (vs80) | 5.0 | 9.0 | 6.0 | 5.1 | 9.0 | 4.5 |

| Application Name | Latest Tested Version | Partner Device Compatibility Pages | Recommended Tape Driver |
|-----------------------------------------|-----------------------|--------------------------------------------|-------------------------|
| HP OpenView Storage Data Protector | 5.5 | Data Protector HCL | Native Drivers |
| Computer Associates BrightStor ARCserve | 11.5 | ARCserve HCL | CABA Drivers |
| EMC Legato NetWorker | 7.3 | NetWorker HCL | HP Drivers |
| IBM Tivoli Storage Manager | 5.3 | Tivoli Storage Manager HCL | Tivoli Drivers |
| Symantec Backup Exec for Windows | 10d | Backup Exec HCL | BE Drivers |
| Symantec Backup Exec for NetWare | 9.2 | Backup Exec HCL | BE Drivers |
| Symantec NetBackup | 6.0 | NetBackup HCL | HP or NBU Drivers |

NOTES:

Use the latest backup application maintenance release unless otherwise noted. Refer to the backup application vendor for specific patches, builds, and drivers required to support HP tape automation and virtual library products.

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 2 Unit Cross Link ¹ | ✓ | ✓ ³ | ✓ | ✓ | | ✓ |
| ESL E-Series 3-5 Unit Cross Link ¹ | ✓ | | | | | ✓ |
| ESL 9000 Multi-Unit Scalability ¹ | ✓ | ✓ ³ | ✓ | ✓ | | ✓ |
| ESL Mixed Media | ✓ | ✓ ³ | ✓ | ✓ | ✓ ⁴ | ✓ |
| ESL Partitioning | ✓ | ✓ ³ | ✓ | ✓ | ✓ ⁴ | ✓ |
| EML Partitioning | ✓ | | ✓ | ✓ | ✓ ⁴ | ✓ |
| Midrange Libraries | | | | | | |
| MSL 6000 Multi-Unit Scalability ^{1,2} | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MSL 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 4Gb Interface Controller (FC-FC) | e2400-FC 2Gb Interface Controller (FC-FC) | e2400-160 Interface Controller (FC-SCSI) | NSR E2400 ³ | NSR M2402 | NSR N1200-320 4Gb | 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 (SDLT600) | | | ✓ | | ✓ | | |
| ESL 9595 S2 (SDLT320) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| ESL 9326 (SDLT600) | | | ✓ | | ✓ | | |
| ESL 9326 (SDLT320) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| ESL 9322 (Ultrium 960) | | | ✓ | | ✓ | | |
| ESL 9322 (Ultrium 460) | | | ✓ | | ✓ | | |
| ESL 9322 (SDLT600) | | | ✓ | | ✓ | | |
| ESL 9322 (SDLT320) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| ESL 9198 (SDLT600) | | | ✓ | | ✓ | | |
| ESL 9198 S2 (SDLT320) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 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 | e1200-320 4Gb Interface Controller (FC-SCSI) | NSR E1200-160 | NSR M2402 | NSR N1200-320 4Gb | NSR N1200 |
|----------------------------------|-------------------------------------------------|---------------|-----------|-------------------|-----------|
| Mid-Range Libraries | | | | | |
| MSL 6060 (Ultrium 960) | ✓ | ✓ | ✓ | | |
| MSL 6060 (Ultrium 460) | ✓ | ✓ | ✓ | | |
| MSL 6052 (SDLT 600) | ✓ | ✓ | ✓ | | |
| MSL 6030 (Ultrium 960) | ✓ | ✓ | ✓ | | |
| MSL 6030 (Ultrium 460) | ✓ | ✓ | ✓ | | |
| MSL 6026 (SDLT 600) | ✓ | ✓ | ✓ | | |
| MSL 4048 | | | | ✓ | ✓ |
| MSL 2024 | | | | ✓ | ✓ |
| MSL 6000 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

| 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 | i171 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| e2400-FC 4Gb Interface Controller (FC-FC) | 5.7.1b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| e2400-FC 2Gb Interface Controller (FC-FC) | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| e2400-160 Interface Controller (FC-SCSI) | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| e1200-320 4Gb Interface Controller (FC-SCSI) | 5.7.1b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR E1200-160 | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR E2400 | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR E1200 | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR M2402 | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR N1200-320 4Gb | 5.7.1b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NSR N1200 | 5.6.87 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Interface Manager Firmware Required Minimum Component

| | i142 | i150 | i155 | i160 | i161 | i170 | i171 |
|----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| e2400-FC 4Gb Interface Controller (FC-FC) | N/A | N/A | N/A | N/A | 5.7.06 | 5.7.18 | 5.7.1b |
| e2400-FC 2Gb Interface Controller (FC-FC) | 5.6.06 | 5.6.41 | 5.6.69 | 5.6.78 | 5.6.7a | 5.6.87 | 5.6.87 |
| e2400-160 Interface Controller (FC-SCSI) | 5.6.06 | 5.6.41 | 5.6.69 | 5.6.78 | 5.6.7a | 5.6.87 | 5.6.87 |
| NSR E2400 | 5.6.06 | 5.6.41 | 5.6.69 | 5.6.78 | 5.6.7a | 5.6.87 | 5.6.87 |
| NSR E1200-160 | 5.6.06 | 5.6.41 | 5.6.69 | 5.6.78 | 5.6.7a | 5.6.87 | 5.6.87 |
| ESL 9595/9322 | 3.55 | 3.55 | 3.55 | 3.60 | 3.60 | 3.60 | 3.60 |
| ESL 9198/9326 | 3.55 | 3.55 | 3.55 | 3.60 | 3.60 | 3.60 | 3.60 |
| ESL E-Series 712e/630e | 2.00 | 3.00 | 3.00 | 4.10 | 4.10 | 4.60 | 4.60 |
| ESL E-Series 322e/286e | 2.00 | 3.00 | 3.00 | 4.10 | 4.10 | 4.60 | 4.60 |
| EML E-Series | N/A | N/A | 1016 | 1022 | 1022 | 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 | 1.4.02 | 1.50 | 1.5.05 | 1.6.00 | 1.6.01 | 1.7 | 1.7 |

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, June 2005 Quality Pack. June 2005 | HWE 11.11, Dec 2004 Gold Pack, Dec 2004 | | HWE 11.11, June 2005 Quality Pack. June 2005 |
| HP-UX 11.23 (11i v2) | HWE 11i v2 March 2006 Quality Pack March 2006 | | HWE 11i v2 March 2006 Quality Pack March 2006 | HWE 11i v2 March 2006 Quality Pack March 2006 | | HWE 11i v2 March 2006 Quality Pack March 2006 |
| 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) ⁷ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Workstations | | | | | | |
| HP B-Class (PA-RISC) | ✓ | | | | | ✓ |
| HP C-Class (PA-RISC) | ✓ | | | | | ✓ |
| HP J-Class (PA-RISC) | ✓ | | | | | ✓ |
| Fibre Host Bus Adapters ⁵ | | | | | | |
| AB379A (4G) | | | | | | |
| FW | | | | | | |
| fcd Driver | | | Native ⁷ | | | Native ⁷ |
| AB378A (4G) | | | | | | |
| FW | | | 4.00.70 | | | 4.00.70 |
| fcd Driver | | | Native ⁷ | | | Native ⁷ |
| AB465A (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A9782 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A9784 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A6826A (2G) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| 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.
- 7) Supported with HP-UX 11.23 only.

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 March 2006 Quality Pack March 2006 | HWE 11.23 May 2005 Quality Pack May 2005 | HWE 11.23 March 2006 Quality Pack March 2006 | HWE 11.23 May 2005 Quality Pack May 2005 | | HWE 11.23 March 2006 Quality Pack March 2006 |
| 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 | | | | | | |
| AB379A (4G) | | | | | | |
| FW | | | | | | |
| fcd Driver | | | Native | | | Native |
| AB378A (4G) | | | | | | |
| FW | | | 4.00.70 | | | 4.00.70 |
| fcd Driver | | | Native | | | Native |
| AB465A (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A9782 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A9784 (2G Combo Card) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| fcd Driver | Native | Native | Native | Native | | Native |
| A6795A (2G) | | | | | | |
| FW | 1.10 | 1.10 | 1.10 | 1.10 | | 1.10 |
| Id Driver | Native | Native | Native | Native | | Native |
| A6826A (2G) | | | | | | |
| FW | 3.003.154 | 3.003.154 | 3.003.154 | 3.003.154 | | 3.003.154 |
| 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 p-Class Blade Server | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| HP NetServer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Third Party X86 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fibre Host Bus Adapters ^{5, 6} | | | | | | |
| HP Branded / 3rd Party | | | | | | |
| FC2243 / Emulex LP11002 (4G) FC2143 / Emulex LP1150 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | 2.10a7 | 2.10a7 | 2.10a7 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| AE369A (4G) AB429A (4G) | | | | | | |
| FW | 1.09 | | 1.09 | 1.09 | 1.09 | 1.09 |
| WIN 2000/2003 SCSIport Driver | 9.1.0.13 | | 9.1.0.13 | 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 | 9.1.0.18 |
| FC1142SR / QLogic QLE2460 (4G) FC1242SR DC / QLogic QLE2462 (4G) | | | | | | |
| BIOS | 1.06 | | 1.06 | | 1.06 | 1.06 |
| WIN 2000/2003 SCSIport Driver | 9.1.0.13 | | 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 | 9.1.0.18 |
| FC2142SR / Emulex LPe1150 (4G) FC2242SR DC / Emulex LPe11002-M4 (4G) | | | | | | |
| FW | 2.50a2 | | 2.50a2 | | 2.50a2 | 2.50a2 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | | 5-5.20a10 | | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| A7388A / Emulex LP1050 (2G) A7387A / Emulex LP1050DC (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| A7560A / Emulex LP1050EX-F2 (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |

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 QFE912944 (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 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| FCA2408 / Emulex LP982 (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| Emulex Mezzanine Card for p-Class Blades (2G) | | | | | | |
| FW | 1.91a2 | 1.91a2 | 1.91a2 | 1.91a2 | 1.91a2 | 1.91a2 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| QLogic Balcony Card for p-Class Blades (2G) QLogic Mezzanine Card for p-Class Blades (2G) | | | | | | |
| FW (BL25p) | 1.48 | 1.48 | 1.48 | 1.48 | 1.48 | 1.48 |
| FW (BL20p, BL30p, and BL35p) | 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 | 9.1.0.13 | 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 | | 9.1.0.18 | 9.1.0.18 |
| FCA2404 / Emulex LP9802 (2G) FCA2404DC / Emulex LP9802DC (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 | 1.91a1 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| FCA2101 / Emulex LP952 (2G) | | | | | | |
| FW | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{3,4} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| FCA2214 / QLogic 2340 (2G) 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 | 9.1.0.13 | 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 |

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 QFE912944 (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 | | | | | | |
| KGPSA-CB / Emulex LP8000 (1G) | | | | | | |
| FW | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 | 3.93a0 |
| WIN 2000/2003 SCSIport Driver | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 | 5-5.20a10 |
| WIN 2003 StorPort Driver ^{7,8} | 5-1.11x1 | 5-1.11x1 | 5-1.11x1 | | 5-1.11x1 | 5-1.11x1 |
| 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 QFE912944 (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 | | | | | | |
| AB379A (4G) AB429A (4G) | | | | | | |
| EFI | 1.05 | | | | | 1.05 |
| WIN 2003 StorPort Driver ^{5, 8} | 9.1.0.18 | | | | | 9.1.0.18 |
| FC2143 / Emulex LP1150 (4G) FC2243 / Emulex LP11002 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | 2.10a7 | | 2.10a7 |
| WIN 2003 SCSIport Driver | 6-5.20a9 | | 6-5.20a9 | 6-5.20a9 | | 6-5.20a9 |
| WIN 2003 StorPort Driver ^{5, 8} | 6-1.11x1 | | 6-1.11x1 | | | 6-1.11x1 |
| AB467A / Emulex LP1050 (2G) 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} | 6-1.11x1 | 6-1.11x1 | 6-1.11x1 | | | 6-1.11x1 |
| 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} | 6-1.11x1 | 6-1.11x1 | 6-1.11x1 | | | 6-1.11x1 |
| 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} | 6-1.11x1 | 6-1.11x1 | 6-1.11x1 | | | 6-1.11x1 |
| 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 QFE912944 (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 | sp1 | sp1 | | | sp1 |
| Windows Server 2003 R2 x64 Edition | ✓ | ✓ | ✓ | | | ✓ |
| Servers | | | | | | |
| HP ProLiant | ✓ | ✓ | ✓ | | | ✓ |
| HP ProLiant p-Class Blade Server | ✓ | ✓ | ✓ | | | ✓ |
| Fibre Host Bus Adapters 4,5 | | | | | | |
| HP Branded / 3rd Party | | | | | | |
| AE369A (4G) AB429A (4G) | | | | | | |
| FW | 1.09 | | 1.09 | | | 1.09 |
| WIN 2003 StorPort Driver ^{6,7} | 9.1.0.18 | | 9.1.0.18 | | | 9.1.0.18 |
| FC2143 / Emulex LP1150 (4G) FC2243 / Emulex LP11002 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | | | 2.10a7 |
| WIN 2003 StorPort Driver ^{6,7} | 7-1.11x1 | | 7-1.11x1 | | | 7-1.11x1 |
| A7388A / Emulex LP1050 (2G) A7387A / Emulex LP1050DC (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | | | 1.91a1 |
| WIN 2003 StorPort Driver ^{6,7} | 7-1.11x1 | 7-1.11x1 | 7-1.11x1 | | | 7-1.11x1 |
| FCA2408 / Emulex LP982 (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | | | 1.91a1 |
| WIN 2003 StorPort Driver ^{6,7} | 7-1.11x1 | 7-1.11x1 | 7-1.11x1 | | | 7-1.11x1 |
| FCA2404 / Emulex LP9802 (2G) FCA2404DC / Emulex LP9802DC (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | | | 1.91a1 |
| WIN 2003 StorPort Driver ^{6,7} | 7-1.11x1 | 7-1.11x1 | 7-1.11x1 | | | 7-1.11x1 |
| QLogic Balcony Card for p-Class Blades (2G) QLogic Mezzanine Card for p-Class Blades (2G) | | | | | | |
| FW (BL25p) | 1.48 | 1.48 | 1.48 | | | 1.48 |
| FW (BL20p, BL30p, and BL35p) | 1.45 | 1.45 | 1.45 | | | 1.45 |
| WIN 2003 StorPort Driver ^{6,7} | 9.1.0.18 | 9.1.0.18 | 9.1.0.18 | | | 9.1.0.18 |
| FCA2404 / Emulex LP9802 (2G) FCA2404DC / Emulex LP9802DC (2G) | | | | | | |
| FW | 1.91a1 | 1.91a1 | 1.91a1 | | | 1.91a1 |
| WIN 2003 StorPort Driver ^{6,7} | 7-1.11x1 | 7-1.11x1 | 7-1.11x1 | | | 7-1.11x1 |
| 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 QFE912944 (recommended).
- 7) Please reference ISV application installation/support documents for specific driver and patch requirements.

LINUX (32-bit) ^{4,6}

| 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} | | | | | | |
| 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 p-Class Blade Server | ✓ | ✓ | ✓ | ✓ | | ✓ |
| HP NetServer | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Third Party X86 | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Fibre Host Bus Adapters ^{3, 5} | | | | | | |
| HP Branded / 3rd Party | | | | | | |
| AE369A (4G) AB429A (4G) | | | | | | |
| FW | | | 1.09 | 1.09 | | 1.09 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| SuSE SLES 9 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| FC2143 / Emulex LP1150 (4G) FC2243 / Emulex LP11002 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | 2.10a7 | | 2.10a7 |
| Red Hat Enterprise Linux 3.0 driver | 7.3.4-1 | | 7.3.4-1 | | | 7.3.4-1 |
| Red Hat Enterprise Linux 4.0 driver | 8.0.16.21 | | 8.0.16.21 | 8.0.16.21 | | 8.0.16.21 |
| SuSE SLES 9 driver | 8.0.16.21 | | 8.0.16.21 | 8.0.16.21 | | 8.0.16.21 |
| FC2142SR / Emulex LPe1150 (4G) FC2242SR DC / Emulex LPe11002-M4 (4G) | | | | | | |
| FW | | | 2.50a2 | 2.50a2 | | 2.50a2 |
| Red Hat Enterprise Linux 3.0 driver | | | 7.3.2-1 | | | 7.3.2-1 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| SuSE SLES 9 driver | | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| FC1142SR / QLogic QLE2460 (4G) FC1242SR DC / QLE2462 (4G) | | | | | | |
| BIOS | | | 1.06 | | | 1.06 |
| 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 |
| United Linux 1.0/SuSE SLES 8 driver | | | 7.07.03 | | | 7.07.03 |
| SuSE SLES 9 driver | | | 8.01.03 | | | 8.01.03 |
| FCA2214 / QLogic 2340 (2G) 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 | 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 | | 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.
- 6) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

LINUX (32-bit)^{4,6} - 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 | | | | | | |
| Emulex Mezzanine Card for p-Class Blades (2G) | | | | | | |
| FW | 1.91a2 | | 1.91a2 | 1.91a2 | | 1.91a2 |
| Red Hat Enterprise Linux 3.0 driver | 7.3.2-1 | | 7.3.2-1 | 7.3.2-1 | | 7.3.2-1 |
| Red Hat Enterprise Linux 4.0 driver | 8.0.16.17 | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| SuSE SLES 9 driver | 8.0.16.17 | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| QLogic Balcony Card for p-Class Blades (2G) QLogic Mezzanine Card for BL20p G2/G3 (2G) | | | | | | |
| FW (BL25p) | 1.48 | 1.48 | 1.48 | 1.48 | | 1.48 |
| FW (BL20p, BL30p, and BL35p) | 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 | 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 | | 8.01.03 |
| Disk Array Multipath Support³ | | | | | | |
| Secure Path for Linux | 3.0C | | 3.0C SP2 | 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 | 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.
- 6) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

LINUX (Integrity)^{3,5}

| 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} | | | | | | |
| 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 Adapters⁴ | | | | | | |
| AB379A (4G) | | | | | | |
| AB429A (4G) | | | | | | |
| EFI | | | 1.05 | | | 1.05 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.01.03 | | | 8.01.03 |
| SuSE SLES 9 driver | | | 8.01.03 | | | 8.01.03 |
| FC2143 / Emulex LP1150 (4G) | | | | | | |
| FC2243 / Emulex LP11002 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | | | 2.10a7 |
| Red Hat Enterprise Linux 3.0 driver | | | 7.3.4-1 | | | 7.3.4-1 |
| Red Hat Enterprise Linux 4.0 driver | 8.0.16.21 | | 8.0.16.21 | | | 8.0.16.21 |
| SuSE SLES 9 driver | 8.0.16.21 | | 8.0.16.21 | | | 8.0.16.21 |
| A6826A (2G) | | | | | | |
| BIOS | 1.45 | 1.45 | 1.45 | | | 1.45 |
| 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 | | | 7.07.03 |
| Red Hat Enterprise Linux 4.0 driver | 8.01.03 | 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 | 8.01.03 | | | 8.01.03 |
| A7538A (2G) | | | | | | |
| BIOS | 1.45 | 1.45 | 1.45 | | | 1.45 |
| 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 | | | 7.07.03 |
| Red Hat Enterprise Linux 4.0 driver | 8.01.03 | 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 | 8.01.03 | | | 8.01.03 |
| Disk Array Multipath Support⁴ | | | | | | |
| Secure Path for Linux | 3.0C | | 3.0C | | | 3.0C SP2 |
| QLogic Native Multi-Path for Linux (2.4 kernel) | 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 | | | 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.
- 5) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

LINUX x64^{4,6}

| 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} | | | | | | |
| Red Hat Enterprise Linux [AS/ES/WS] 4.0 (x64) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| SuSE SLES 9 (x64) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Servers | | | | | | |
| HP ProLiant | ✓ | ✓ | ✓ | ✓ | | ✓ |
| HP ProLiant p-Class Blade Server | ✓ | ✓ | ✓ | ✓ | | ✓ |
| HP NetServer | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Third Party X86 | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Fibre Host Bus Adapters ^{3, 5} | | | | | | |
| HP Branded / 3rd Party | | | | | | |
| AE369A (4G) | | | | | | |
| AB429A (4G) | | | | | | |
| FW | | | 1.09 | 1.09 | | 1.09 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| SuSE SLES 9 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| FC2143 / Emulex LP1150 (4G) | | | | | | |
| FC2243 / Emulex LP11002 (4G) | | | | | | |
| FW | 2.10a7 | | 2.10a7 | 2.10a7 | | 2.10a7 |
| Red Hat Enterprise Linux 3.0 driver | 7.3.4-1 | | 7.3.4-1 | 7.3.4-1 | | 7.3.4-1 |
| Red Hat Enterprise Linux 4.0 driver | 8.0.16.21 | | 8.0.16.21 | 8.0.16.21 | | 8.0.16.21 |
| SuSE SLES 9 driver | 8.0.16.21 | | 8.0.16.21 | 8.0.16.21 | | 8.0.16.21 |
| FC2142SR / Emulex LPe1150 (4G) | | | | | | |
| FC2242SR DC / Emulex LPe11002-M4 (4G) | | | | | | |
| FW | | | 2.50a2 | 2.50a2 | | 2.50a2 |
| Red Hat Enterprise Linux 3.0 driver | | | 7.3.2-1 | 7.3.2-1 | | 7.3.2-1 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| SuSE SLES 9 driver | | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| FC1142SR / QLogic QLE2460 (4G) | | | | | | |
| FC1242SR DC / QLE2462 (4G) | | | | | | |
| BIOS | | | 1.06 | 1.06 | | 1.06 |
| Red Hat Enterprise Linux 4.0 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| SuSE SLES 9 driver | | | 8.01.03 | 8.01.03 | | 8.01.03 |
| FCA2214 / QLogic 2340 (2G) | | | | | | |
| FCA2214DC / QLogic 2342 (2G) | | | | | | |
| FW | 1.45 | 1.45 | 1.45 | 1.45 | | 1.45 |
| Red Hat Enterprise Linux 4.0 driver | 8.01.03 | 8.01.03 | 8.01.03 | 8.01.03 | | 8.01.03 |
| SuSE SLES 9 driver | 8.01.03 | 8.01.03 | 8.01.03 | 8.01.03 | | 8.01.03 |
| Emulex Mezzanine Card for p-Class Blades (2G) | | | | | | |
| FW | 1.91a2 | | 1.91a2 | 1.91a2 | | 1.91a2 |
| Red Hat Enterprise Linux 3.0 driver | 7.3.2-1 | | 7.3.2-1 | 7.3.2-1 | | 7.3.2-1 |
| Red Hat Enterprise Linux 4.0 driver | 8.0.16.17 | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| SuSE SLES 9 driver | 8.0.16.17 | | 8.0.16.17 | 8.0.16.17 | | 8.0.16.17 |
| QLogic Balcony Card for p-Class Blades (2G) | | | | | | |
| QLogic Mezzanine Card for p-Class Blades G2/G3 (2G) | | | | | | |
| FW (BL25p) | 1.48 | 1.48 | 1.48 | 1.48 | | 1.48 |
| FW (BL20p, BL30p, and BL35p) | 1.45 | 1.45 | 1.45 | 1.45 | | 1.45 |
| Red Hat Enterprise Linux 4.0 driver | 8.01.03 | 8.01.03 | 8.01.03 | 8.01.03 | | 8.01.03 |
| SuSE SLES 9 driver | 8.01.03 | 8.01.03 | 8.01.03 | 8.01.03 | | 8.01.03 |
| Disk Array Multipath Support ³ | | | | | | |
| QLogic Native Multi-Path for Linux (2.6 kernel) | 8.01.03 | 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.
- 6) Due to tape device discovery issues, SP2 for SLES 9 is not supported.

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) | | | | | | |
| Fcode | 2.00.09 | 2.00.09 | 2.00.09 | 2.00.09 | | 2.00.09 |
| Driver | 4.20 | 4.20 | 4.20 | 4.20 | | 4.20 |
| FCA2257C (1G) | | | | | | |
| Fcode | 1.18.5 | 1.18.5 | 1.18.5 | 1.18.5 | | 1.18.5 |
| Driver | 4.13.01 | 3.26 | 4.13.01 | 4.13.01 | | 4.13.01 |
| FCA2257S (1G) | | | | | | |
| Fcode | 1.18.3 | 1.18.3 | 1.18.3 | 1.18.3 | | 1.18.3 |
| Driver | 4.13.01 | 3.26 | 4.13.01 | 4.13.01 | | 4.13.01 |
| SG-XPCI1FC-QF2 (X6767A) (2G) SG-XPCI2FC-QF2 (X6768A) (2G) | | | | | | |
| Sun SFS Driver | 4.4.8 or later ⁵ | 4.4.8 or later | 4.4.8 or later | 4.4.8 or later ⁴ | | 4.4.8 or later |
| QLogic QLA2342 (2G) QLogic QLA2340 (2G) | | | | | | |
| Fcode | | | 2.00.09 | | | |
| Driver | | | 4.20 | | | |
| Sun SFS Driver | | | 4.4.8 or later | | | |
| FCA2684/Emulex LP10000 (2G) FCA2684DC/Emulex LP10000DC (2G) | | | | | | |
| FW | | 1.90a4 | 1.90a4 | 1.90a4 | | 1.90a4 |
| Driver | | 6.01f | 6.01f ⁴ | 6.01f ⁴ | | 6.01f |
| Sun SFS Driver | | 4.4.8 or later | 4.4.8 or later | 4.4.8 or later | | 4.4.8 or later |
| Emulex LP9002L (2G) | | | | | | |
| FW | | | 3.92a2 | | | 3.92a2 |
| 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 | | | ✓ ⁴ | | | ✓ ³ |
| VERITAS DMP | | | ✓ ⁵ | | | ✓ ⁵ |
| 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.
- 4) Supported with Solaris 9 and 10.
- 5) Supported with Solaris 10.

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 ⁸ | 5.1A pk6 | 5.1A pk6 ⁷ | 5.1A pk6 | | | 5.1A pk6 |
| Tru64 5.1B ⁸ | V5.1B-2 | | V5.1B-3 | | | V5.1B-3 |
| Servers | | | | | | |
| HP AlphaServer | ✓ | ✓ | ✓ | | | ✓ |
| Fibre Host Bus Adapters ⁵ | | | | | | |
| FCA2684 (2G) FCA2684 DC (2G) | | | | | | |
| FW | 1.91x6 | | 1.91x6 | | | 1.91x6 |
| Tru64 Driver | 2.17 | | 2.17 | | | 2.17 |
| FCA2354 (2G) | | | | | | |
| FW | 3.93a0 | 3.93a0 | 3.93a0 | | | 3.93a0 |
| Tru64 Driver | 2.17 | 2.14 | 2.17 | | | 2.17 |
| FCA2384 (2G) | | | | | | |
| FW | 1.91x6 | | 1.91x6 | | | 1.91x6 |
| Tru64 Driver | 2.17 | | 2.17 | | | 2.17 |
| KGPSA -CA (1G) | | | | | | |
| FW | 3.93a0 | 3.93a0 | 3.93a0 | | | 3.93a0 |
| Tru64 Driver | 2.17 | 2.14 | 2.17 | | | 2.17 |
| Disk Array Multipath Support ⁵ | | | | | | |
| Tru64 Multipath | | Native | Native | | | Native |
| High Availability ⁴ | | | | | | |
| Tru64 (TruCluster) | | | ✓ | | | ✓ |
| OVMS | | | | | | |
| 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) | | | | | | |
| 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 | 1.6.5.1 | 1.6.5.1 | 1.6.5.1 | | | 1.6.5.1 |
| IBM 6228 (2G) | | | | | | |
| AIX Driver | Native | Native | Native | Native | | Native |
| IBM 6239 (2G) | | | | | | |
| AIX Driver | Native ⁸ | Native ⁸ | Native ⁸ | Native ⁸ | | Native ⁸ |
| IBM 5716 (2G) | | | | | | |
| AIX Driver | Native ⁹ | Native ⁸ | Native ⁸ | 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 | 1.6.5.1 | | 1.6.5.1 | 1.6.5.1 | | 1.6.5.1 |
| Disk Array Multipath Support ⁴ | | | | | | |
| Secure Path for AIX | 2.0D SP3 | 2.0D SP3 | 2.0D SP3 | 2.0D SP3 | | 2.0D SP3 |
| AIX MPIO | ✓ ¹⁰ | | ✓ ¹⁰ | ✓ | | ✓ |

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.
- 10) Disk and tape require dedicated HBA's.

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 sp5 | 6.5 sp2 ³ | | | 6.5 sp4 | |
| Servers | | | | | | |
| HP ProLiant ⁵ | ✓ | ✓ | | | ✓ | |
| HP ProLiant p-Class Blade Server ⁵ | ✓ | ✓ | | | ✓ | |
| HP NetServer | ✓ | ✓ | | | ✓ | |
| Third Party X86 | ✓ | ✓ | | | ✓ | |
| Fibre Host Bus Adapters ^{3, 5} | | | | | | |
| FCA2214 (FCA2210) / QLA2340 (2G) FCA2214DC / QLA2342 (2G) | | | | | | |
| FW | 1.45 | 1.45 | | | 1.45 | |
| NetWare Driver | 6.91d | 6.51b | | | 6.80h | |
| 64-bit / 66 MHz PCI to FC HBA (1G) ^{6, 7, 8} | | | | | | |
| NetWare Driver | 2.52 | | | | 2.52 | |
| 32-bit / 33 MHz HBA (1G) ^{6, 7, 8} | | | | | | |
| NetWare Driver | 2.52 | | | | 2.52 | |
| Disk Array Multipath Support ⁵ | | | | | | |
| Secure Path for NetWare ⁹ | 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) Heterogeneous Windows and NetWare configurations require FCA-2210 HBA for access to shared tape.
- 9) 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 4Gb | e2400-FC 2Gb | e2400-160 | e1200-320 4Gb | NSR E1200-160 | NSR E2400 | NSR E1200 | NSR M2402 | NSR N1200-320 4Gb | NSR N1200 |
|--------------------------------------------------------|-------------------|--------------|--------------|-----------|---------------|---------------|-----------|-----------|-----------|-------------------|-----------|
| SAN Switches¹ | | | | | | | | | | | |
| McData 4Gb SAN Switch for HP p-Class BladeSystem | 5.2.2.15.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| McData Sphereon 4700 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| McData Sphereon 4400 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Director Switch 2/140 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Director Switch 2/64 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Edge Switch 2/32 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Edge Switch 2/24 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Edge Switch 2/16 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Edge Switch 2/12 | 08.02.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Director 4/256 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 4/64 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 4/32 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 4/16 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 4/8 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Brocade 4Gb SAN Switch for HP p-Class BladeSystem | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Director 2/128 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Core Switch 2/64 | 5.0.3b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 2/32 | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 2/16N | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 2/16V | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 2/16 | 3.2.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAN Switch 2/8V | 5.1.0b | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 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 9513 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9506 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9509 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9216 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9216a | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9216i | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9120 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9140 | 3.0(1) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cisco MDS 9020 | 2.1(2) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multi-Protocol Routers and Gateways¹ | | | | | | | | | | | |
| Multi-Protocol Router ^{2,3} | 7.4.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 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, 4}

| 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-KZPEA-DB Ultra160, LVD, Dual Channel, VHDCI | 284688-B21 Ultra160, LVD, Dual Channel, VHDCI |
| 374654-B21 Ultra320, LVD, Single Channel, VHDCI | A7173A Ultra320, LVD, Dual Channel, VHDCI | 374654-B21 Ultra320, LVD, Single Channel, VHDCI | 3X-KZPCA-AA Ultra80, LVD, Single 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 | | 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) SMART Array Controllers do not support attachment to tape automation products listed in this EBS Compatibility Matrix.

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 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Continuous Access | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Business Copy EVA | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Business Copy XP | ✓ | | | | | |
| Tools and Utilities | | | | | | |
| Storage Essentials | 5.0.1 SP2 | 5.0.1 SP2 | 5.0.1 SP2 | 5.0.1 SP2 | 5.0.1 SP2 | 5.0.1 SP2 |
| Systems Insight Manager (SIM) | 5.0 SP4 | 5.0 SP4 | 5.0 SP4 | 5.0 SP4 | 5.0 SP4 | 5.0 SP4 |
| Insight Manager Agents | 7.51A | 7.51A | 7.51A | 7.51A | 7.51A | 7.51A |
| Smart Start | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 |

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 |
| MSL5000 Series | March 2006 |
| SSL1016 Tape Autoloaders | March 2006 |
| ESL9000 Series (Ultrium 230 and SDLT 110/220) | March 2006 |
| 1/8 Tape Autoloaders (Ultrium 230 and Ultrium 460) | March 2006 |
| | |

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 |
| Library and Tape Tools (LTT) | http://h18006.www1.hp.com/products/storageworks/ltt/index.html |
| Interconnects | http://h18006.www1.hp.com/storage/saninfrastructure.html |
| RAID Arrays | http://h18006.www1.hp.com/storage/arrayssystems.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 |
| Tape Systems | http://www.hp.com/go/tape |
| 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 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 05/09/06 | HP StorageWorks Network Storage Router (NSR) or Interface Controller (IFC) have a Maximum Limit for the Number of Initiators That Can Be Seen Through One or Two External Fibre Channel Port Routers | c00492083 |
| 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 |
| 09/26/05 | 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 |
| 06/29/05 | Some 64-Bit HP Servers Running Red Hat Enterprise Linux 3 (or later) May Have Longer Than Expected System Backup Times or Appear to be Stalled when Backing Up Sparse Files. | OT050520_SW02 |
| 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 < 1142 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 |

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.