

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

May 2008 Version 1.0

## Start Here

### Key Updates:

- Windows Server 2008 support with Symantec Backup Exec 12.0
- New Cisco 9134 switch support
- New Emulex Mezzanine support for HP c-class bladeSystems
- New HP BladeSystem c-Class PCI Expansion Blade with SAS Host Bus Adapters support
- New Formatting for HBA pages now organized by speeds, bus technology and vendor
- New Application Advisories on the Advisories page
- Interoperability updates throughout



# HP StorageWorks EBS Compatibility Matrix

## Enterprise Backup Solution Compatibility Matrix Index

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

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## 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](http://www.hp.com/go/ebs).

Updates/changes to individual fields within the Matrix will be **highlighted in RED**.

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

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

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

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

| HP StorageWorks EBS Compatibility Matrix                                      |   |   |   |   |                      |  |
|---|---|---|---|---|----------------------|--|
| HP-UX (Integrity) <sup>5</sup>  |   |   |   |   |                      |  |
| DAS, DAF, and SAN Support   | HP Data Protector                         | CA ARCserve <sup>9</sup>                  | EMC NetWorker   | IBM Tivoli Storage Manager                | Symantec Backup Exec | Symantec Veritas NetBackup                 |
| <b>Operating Systems <sup>1, 2</sup></b>                                      |   |   |   |   |                      |  |
| HP-UX 11.23 (11i v2)  | HWE 11i v2 Dec 2007 Quality Pack Dec 2007 | HWE 11i v2 May 2005 Quality Pack May 2005 | HWE 11i v2 Dec 2007 Quality Pack Dec 2007                             | HWE 11i v2 Dec 2007 Quality Pack Dec 2007 |                      | HWE 11i v2 June 2007 Quality Pack Dec 2007 |
| HP-UX 11.31 (11i v3)  |   |   | HWE 11i v3 Sept 2007 <sup>7</sup> Quality Pack Sept 2007 <sup>7</sup> |   |                      |  |
| <b>Servers</b>  |   |   |   |   |                      |  |
| HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)        | ✓   | ✓   | ✓   | ✓   |                      | ✓  |
| HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)                    | ✓   | ✓   | ✓   | ✓   |                      | ✓  |
| HP ProLiant c-Class BladeSystem   |   |   |   |   |                      | ✓  |
| <b>4Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>                        |   |   |   |   |                      |  |
| AD193A / AD194A (4G, PCI-X 2.0, Combo Card)                                   |   |   |   |   |                      |  |
| FW  | 4.0.91                                    |   | 4.0.91  | 4.0.91                                    |                      | 4.0.91                                     |
| <b>fcpl Driver</b>  | Native                                    |   | Native  | Native                                    |                      | Native                                     |
| AD300A / QLogic QLE2462 (4G, PCI-e)   |   |   |   |   |                      |  |
| FW  | 4.0.91                                    |   |   | 4.0.91                                    |                      | 4.0.91                                     |
| <b>fcpl Driver</b>  | Native                                    |   |   | Native                                    |                      | Native                                     |
| AD299A / AD355A (4G, PCI-e) <sup>8</sup>                                      |   |   |   |   |                      |  |
| FW  | 2.70X5                                    |   | 2.70X5  | 2.70X5                                    |                      | 2.70X5                                     |
| <b>fcpl Driver</b>  | Native <sup>8</sup>                       |   | Native <sup>8</sup>   | Native <sup>8</sup>                       |                      | Native <sup>8</sup>                        |
| AB379A / AB379B (4G, PCI-X 2.0)   |   |   |   |   |                      |  |
| FW  | 4.00.70                                   |   | 4.00.70   | 4.00.70                                   |                      | 4.00.70                                    |
| <b>fcpl Driver</b>  | Native                                    |   | Native  | Native                                    |                      | Native                                     |
| AB378A / AB378B (4G, PCI-X 2.0)   |   |   |   |   |                      |  |
| FW  | 4.00.70                                   |   | 4.00.70   | 4.00.70                                   |                      | 4.00.70                                    |
| <b>fcpl Driver</b>  | Native                                    |   | Native  | Native                                    |                      | Native                                     |
| <b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters<sup>4</sup></b> |   |   |   |   |                      |  |
| QMH246Z (4G, PCI-e) for HP c-Class BladeSystem (403619-B21)                   |   |   |   |   |                      |  |
| EFI   | 1.09                                      |   | 1.09  | 1.09                                      |                      | 1.09                                       |
| <b>fcpl Driver</b>  | Native                                    |   | Native  | Native                                    |                      | Native                                     |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>                        |   |   |   |   |                      |  |
| AB465A (2G, PCI-X, Combo Card)  |   |   |   |   |                      |  |
| FW  | 3.003.154                                 | 3.003.154                                 | 3.003.154   | 3.003.154                                 |                      | 3.003.154                                  |
| <b>fcpl Driver</b>  | Native                                    | Native                                    | Native  | Native                                    |                      | Native                                     |
| A9782 (2G, PCI-X, Combo Card)   |   |   |   |   |                      |  |
| FW  | 3.003.154                                 | 3.003.154                                 | 3.003.154   | 3.003.154                                 |                      | 3.003.154                                  |
| <b>fcpl Driver</b>  | Native                                    | Native                                    | Native  | Native                                    |                      | Native                                     |
| A9784 (2G, PCI-X, Combo Card)   |   |   |   |   |                      |  |
| FW  | 3.003.154                                 | 3.003.154                                 | 3.003.154   | 3.003.154                                 |                      | 3.003.154                                  |
| <b>fcpl Driver</b>  | Native                                    | Native                                    | Native  | Native                                    |                      | Native                                     |
| A6795A (2G, PCI)  |   |   |   |   |                      |  |
| FW  | 1.10                                      | 1.10                                      | 1.10  | 1.10                                      |                      | 1.10                                       |
| <b>fcpl Driver</b>  | Native                                    | Native                                    | Native  | Native                                    |                      | Native                                     |
| A6826A (2G, PCI-X)  |   |   |   |   |                      |  |
| FW  | 3.003.154                                 | 3.003.154                                 | 3.003.154   | 3.003.154                                 |                      | 3.003.154                                  |
| <b>fcpl Driver</b>  | Native                                    | Native                                    | Native  | Native                                    |                      | Native                                     |
| <b>Disk Array Multipath Support <sup>4</sup></b>                              |   |   |   |   |                      |  |
| Secure Path for HP-UX   | 3.0F SP2 patch 2                          | 3.0F SP2 patch 2                          | 3.0F SP2 patch 2  | 3.0F SP2 patch 2                          |                      | 3.0F SP2 patch 2                           |
| <b>High Availability <sup>6</sup></b>   |   |   |   |   |                      |  |
| MC/ServiceGuard   | ✓ <sup>2</sup>                            |   | ✓ <sup>2</sup>  |   |                      |  |

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

Darkened section indicates environment currently not supported by application

Navigation buttons

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. May 2008, v1.0  
 5) For Boot from Tape support, [click here](#), and select the type of tape for compatibility.  
 6) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.  
 7) The pending HP-UX 11.31 PHKL\_36312 patch is required to support the NetWorker 7.4 CDI driver  
 8) Requires FibreChannel2 driver  
 9) Supported with CA ARCserve 11.5 only

# HP StorageWorks EBS Compatibility Matrix

## Virtual Library Systems and Extended Solution Interoperability (ESI) Partner Products

| Direct Attach SCSI (DAS), Direct Attach Fibre (DAF), and Storage Area Network (SAN) Support <sup>1</sup> |                    | HP Data Protector                                     | CA ARCserve    | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|--------------------|---|----------------|---------------|----------------------------|----------------------|----------------------------|
| Virtual Library Systems  | Firmware           | Extended Solution Interoperability (ESI) <sup>1</sup> |                |               |                            |                      |                            |
| VLS 12000 EVA Gateway  | <b>2.2.0</b>       |   |                |               |                            |                      |                            |
| EVA 4000/6000/8000   | 6.110 <sup>8</sup> | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| EVA 4100/6100/8100   | 6.110 <sup>8</sup> |   |                |               |                            |                      |                            |
| EVA 4400   | 9.000              |   |                |               |                            |                      |                            |
| EVA 3000/5000 <sup>2</sup>   | 4.100              |   |                |               |                            |                      |                            |
| VLS 300 EVA Gateway  | <b>2.2.0</b>       |   |                |               |                            |                      |                            |
| EVA 4000/6000/8000   | 6.110 <sup>8</sup> | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| EVA 4100/6100/8100   | 6.110 <sup>8</sup> |   |                |               |                            |                      |                            |
| EVA 4400   | 9.000              |   |                |               |                            |                      |                            |
| EVA 3000/5000 <sup>2</sup>   | 4.100              |   |                |               |                            |                      |                            |
| VLS 9000 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 6800 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 6600 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 6500 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 6200 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 6100 Series  | <b>2.2.0</b>       | ✓   | ✓ <sup>3</sup> | ✓             | ✓                          | ✓                    | ✓                          |
| VLS 1000i Series <sup>5</sup> (iSCSI)  | 2.6.0.228          | ✓   | ✓              | ✓             | ✓ <sup>9</sup>             | ✓ <sup>4</sup>       | ✓                          |
| D2D110 Backup System <sup>7</sup>  |                    | ✓   | ✓              | ✓             | ✓ <sup>6</sup>             | ✓                    | ✓                          |
| D2D120 Backup System <sup>7</sup>  |                    | ✓   | ✓              | ✓             | ✓ <sup>6</sup>             | ✓                    | ✓                          |
| D2D130 Backup System <sup>7</sup>  |                    | ✓   | ✓              | ✓             | ✓ <sup>6</sup>             | ✓                    | ✓                          |

### NOTES:

- 1) See "[How To Use This Document](#)" for description of support.
- 2) EVA3000/5000 support requires minimum VLS firmware version 1.2.0.
- 3) VLS software version 2.1.0 or later is required with ARCserve 11.1 or 11.5 running on Linux. See Customer Advisory "[c01181673](#)" for further details.
- 4) 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.

- 5) Supported with Windows 2003 (32-bit) only using the native Microsoft iSCSI initiator or QLogic 4050c iSCSI HBA.
- 6) Supported with the Qlogic QLA4050 iSCSI HBA for Windows only. For more information go to "[www.hp.com/go/connect](#)"
- 7) For more information go to "[www.hp.com/go/connect](#)"
- 8) EVA 4x00/6x00/8x00 support requires minimum XCS firmware version 6.110.
- 9) Configurations running an HP VLS1000i virtual tape library must use the "HP VLS1000i" emulation in order to function properly.

Virtual Library Systems and Tape Automation Compatibility (TAC) Partner Products

| Direct Attach SCSI (DAS), Direct Attach Fibre (DAF), and Storage Area Network (SAN) Support <sup>1</sup> |                    | Software TAC Partners <sup>1</sup> |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         | Hardware TAC Partners <sup>1</sup> |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
|--|--------------------|------------------------------------|--------------------|------------------------|-----------------------|------------------|-------------------------|-------------------------|----------------|-------------------------------|-----------------|--------------------------|--------------------|---------------------|-------------------------|------------------------------------|------------------|--------------|-------------------------|------------------------|-----------------|-------------------------------|--------------------|-----------------------|---------------------------------|----------------|----------------|-----------------------------|--|
| Virtual Library Systems  | Firmware           | HP Data Protector Express          | HP NonStop Servers | HP File System Servers | Attempo Time Extender | BakBone NetVault | Bridgehead HT ISM Suite | CommVault QNerix Galaxy | EMC Retrospect | Front Porch Digital DVArchive | IBM TSM Express | Intradyn ComplianceVault | Microsoft DPM 2007 | NeoScale CryptoStor | NetApp Data ONTAP 7.2.x | QStar HSM / Data Director          | Quantum StorNext | SGL FlashNet | Syncsort Backup Express | XenData Archive Series | Yosemite Backup | CipherMax CM140T / KeyCruiser | Cisco MDS 9000 SME | Crossroads TapeSentry | Crossroads ReadVerify Appliance | Decru DataFort | FalconStor VTL | NetApp NearStore VTL Series |  |
| VLS 12000 EVA Gateway  | 2.1.0              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 4000/6000/8000   | 6.110 <sup>8</sup> |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 4100/6100/8100   | 6.110 <sup>8</sup> |                                    | ✓                  | ✓                      | ✓                     | ✓                |                         |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| EVA 4400   | 9.000              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 3000/5000 <sup>2</sup>   | 4.100              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| VLS 300 EVA Gateway  | 2.1.0              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 4000/6000/8000   | 6.110 <sup>8</sup> |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 4100/6100/8100   | 6.110 <sup>8</sup> |                                    | ✓                  | ✓                      | ✓                     | ✓                |                         |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| EVA 4400   | 9.000              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| EVA 3000/5000 <sup>2</sup>   | 4.100              |                                    |                    |                        |                       |                  |                         |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| VLS 9000 Series  | 2.1.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 6800 Series  | 1.2.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 6600 Series  | 2.1.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 6500 Series  | 1.2.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 6200 Series  | 2.1.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 6100 Series  | 1.2.0              |                                    | ✓                  | ✓                      | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          | ✓                  | ✓ <sup>6</sup>      |                         | ✓                                  |                  |              |                         |                        |                 | ✓                             | ✓                  |                       |                                 |                |                |                             |  |
| VLS 1000i Series <sup>5</sup> (iSCSI)  | 2.6.0.228          | ✓                                  |                    |                        |                       | ✓                | ✓                       |                         |                |                               |                 |                          |                    |                     |                         |                                    | ✓                |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| D2D110 Backup System <sup>4</sup>  |                    | ✓                                  |                    |                        | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| D2D120 Backup System <sup>4</sup>  |                    | ✓                                  |                    |                        | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |
| D2D130 Backup System <sup>4</sup>  |                    | ✓                                  |                    |                        | ✓                     | ✓                | ✓                       |                         |                |                               |                 |                          |                    |                     |                         |                                    |                  |              |                         |                        |                 |                               |                    |                       |                                 |                |                |                             |  |

NOTES:

- 1) See "How To Use This Document" for description of support.
- 2) EVA3000/5000 support requires minimum VLS firmware version 1.2.0.
- 3) EVA 4x00/6x00/8x00 support requires minimum XCS firmware version 6.110.
- 4) For more information go to "[www.hp.com/go/connect](http://www.hp.com/go/connect)"

- 5) Supported with Windows 2003 (32-bit) only using the native Microsoft iSCSI initiator or QLogic 4050c iSCSI HBA.
- 6) Support is with LTO emulations only.

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

| Direct Attach SCSI (DAS), Direct Attach Fibre (DAF), and Storage Area Network (SAN) Support <sup>1</sup> |                      | HP Data Protector   | CA ARCserve | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|----------------------|---|-------------|---------------|----------------------------|----------------------|----------------------------|
| <b>Enterprise Class Libraries</b>  | <b>Firmware</b>      | <b>Extended Solution Interoperability (ESI) Partners <sup>1</sup></b> |             |               |                            |                      |                            |
| HP Secure Key Manager <sup>10,11</sup>   | 4.7.1                | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>ESL E-Series</b>  | 6.22                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 1840 FC <sup>6</sup>   | H36W <sup>11</sup>   | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960 FC   | L67W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 460  | F6AW                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 460 FC   | K48W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| SDLT 600   | v41                  | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>EML E-Series</b>  | 1222                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 1840 FC <sup>6</sup>   | H36S <sup>11</sup>   | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960 FC   | L6CS                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 460 FC   | K710                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>Business Class Libraries</b>  | <b>Firmware</b>      |   |             |               |                            |                      |                            |
| <b>MSL 8096 <sup>2</sup></b>   | 8.50                 | ✓   | ✓           | ✓             | ✓                          | ✓ <sup>9</sup>       | ✓                          |
| <b>MSL 4048 <sup>2</sup></b>   | 6.00                 | ✓   | ✓           | ✓             | ✓                          | ✓ <sup>9</sup>       | ✓                          |
| <b>MSL 2024 <sup>2</sup></b>   | 3.70                 | ✓   | ✓           | ✓             | ✓                          | ✓ <sup>9</sup>       | ✓                          |
| Ultrium 1840 FC <sup>6</sup>   | H36W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 1840 SCSI <sup>6</sup>   | B34W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 1760 SAS   | U24W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960 4Gb FC   | M63W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960 FC   | L63W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960 SCSI   | G63W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 448 SCSI   | S63W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 920 SCSI   | D22W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 920 SAS <sup>3</sup>   | C24W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>MSL 6000 Series</b>   | 5.20                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 1840 <sup>6</sup>  | B34W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 960  | G63W                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| Ultrium 460  | F6AW                 | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| SDLT 600   | v41                  | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>Tape Autoloaders <sup>2,4,5</sup></b>   | <b>Robot (Drive)</b> |   |             |               |                            |                      |                            |
| 1/8 G2 (Ultrium 1760 SAS)  | 1.80 (U24W)          | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| 1/8 G2 (Ultrium 920 SAS) <sup>3</sup>  | 1.80 (C24W)          | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| 1/8 G2 (Ultrium 920)   | 1.80 (D22W)          | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| 1/8 G2 (Ultrium 448)   | 1.80 (S63W)          | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| 1/8 G2 (Ultrium 232)   | 1.80 (P63W)          | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>Advanced Drive and Media Features</b>   |                      |   |             |               |                            |                      |                            |
| Ultrium LTO4 Software Key Management   |                      | ✓   | ✓           |               | ✓                          | ✓                    |                            |
| Ultrium WORM   |                      | ✓   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| SDLT 600 WORM  |                      |   | ✓           | ✓             | ✓                          | ✓                    | ✓                          |

**NOTES:**

- 1) See "How To Use This Document" for description of support.
- 2) Autoloaders, MSL 2024, MSL 4048, and MSL 8096 are not supported with SMART Array Controllers.
- 3) Automation products with SAS drives must be connected using the HP SC44Ge SAS HBA (part #: 416096-B21).
- 4) Autoloaders are only supported in Direct Attach SCSI configurations.
- 5) Refer to the EBS Design Guide for additional information on the use of native backup commands and programs.

- 6) LTO4 (Ultrium 1840) drives support AES hardware encryption. Refer to the backup/restore application vendor for hardware encryption support details.
- 7) Support is with the Decru DataFort FC-Series and S-Series for Tape only.
- 8) Support with Decru DataFort S-Series in a direct attach SCSI configuration only.
- 9) Not supported with Symantec Backup Exec for NetWare (BENW).

- 10) Please refer to Customer Advisory "c01269477" for operational details.
- 11) HP Secure Key Manager (SKM) requires ESLe LTO4 drive firmware version H36W or later and EMLe LTO4 drive firmware version H36S or later and that the libraries and Interface Controllers use firmware package i231 or later. See the Interface Controller table on page 12 for the full list of firmware requirements.





# HP StorageWorks EBS Compatibility Matrix

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

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

## Lastest and Minimum Application Version Support

|   | HP<br>Data Protector |         | CA ARCserve <sup>9</sup> |                   | EMC NetWorker |         | IBM<br>Tivoli Storage Manager |                  | Symantec<br>Backup Exec (Windows) |                    | Symantec<br>Backup Exec (NetWare) |                  | Symantec Veritas<br>NetBackup |         |
|---|----------------------|---------|--------------------------|-------------------|---------------|---------|-------------------------------|------------------|-----------------------------------|--------------------|-----------------------------------|------------------|-------------------------------|---------|
| <b>Enterprise Class Libraries</b>         | Latest               | Minimum | Latest                   | Minimum           | Latest        | Minimum | Latest                        | Minimum          | Latest                            | Minimum            | Latest                            | Minimum          | Latest                        | Minimum |
| ESL E-Series                              | 6.0                  | 5.0     | 12.0 <sup>9</sup>        | 9.0               | 7.4           | 6.0     | 5.5 <sup>8</sup>              | 5.3              | 12.0                              | 9.0                | 9.2                               | 9.0              | 6.5                           | 4.5     |
| EML E-Series                              | 6.0                  | 5.1     | 12.0 <sup>9</sup>        | 9.0               | 7.4           | 7.0     | 5.5 <sup>8</sup>              | 5.3              | 12.0                              | 10.0               |                                   |                  | 6.5                           | 5.0     |
| <b>Virtual Library Systems</b>            |                      |         |                          |                   |               |         |                               |                  |                                   |                    |                                   |                  |                               |         |
| VLS 12000/300 EVA Gateway                 | 6.0                  | 5.5     | 12.0 <sup>7,9</sup>      | 11.1 <sup>7</sup> | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10.0               |                                   |                  | 6.5                           | 5.0     |
| VLS 9000 Series                           | 6.0                  | 5.5     | 12.0 <sup>7,9</sup>      | 11.1 <sup>7</sup> | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10.0               |                                   |                  | 6.5                           | 5.0     |
| VLS 6000 Series                           | 6.0                  | 5.1     | 12.0 <sup>7,9</sup>      | 11.1 <sup>7</sup> | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10.0               |                                   |                  | 6.5                           | 5.0     |
| VLS 1000i Series (iSCSI)                  | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5 <sup>5</sup>              | 5.3 <sup>5</sup> | 12.0 <sup>5</sup>                 | 10d <sup>5</sup>   |                                   |                  | 6.5                           | 5.0     |
| <b>Business Class Libraries</b>           |                      |         |                          |                   |               |         |                               |                  |                                   |                    |                                   |                  |                               |         |
| MSL 6000 Series                           | 6.0                  | 5.0     | 12.0 <sup>9</sup>        | 9.0               | 7.4           | 6.0     | 5.5                           | 5.3              | 12.0                              | 9.0                | 9.2                               | 9.0              | 6.5                           | 4.5     |
| MSL 8096                                  | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.1              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>2,4</sup> |                                   |                  | 6.5                           | 6.0     |
| MSL 4048                                  | 6.0                  | 5.1     | 12.0 <sup>9</sup>        | 11.1              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>2,4</sup> |                                   |                  | 6.5                           | 6.0     |
| MSL 2024                                  | 6.0                  | 5.1     | 12.0 <sup>9</sup>        | 11.1              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>2,4</sup> |                                   |                  | 6.5                           | 6.0     |
| <b>Autoloaders</b>                        |                      |         |                          |                   |               |         |                               |                  |                                   |                    |                                   |                  |                               |         |
| 1/8 G2 Tape Autoloader (Ultrium 1760 SAS) | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>3</sup>   | 9.2                               | 9.0              | 6.5                           | 6.0     |
| 1/8 G2 Tape Autoloader (Ultrium 920)      | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>3</sup>   | 9.2                               | 9.0              | 6.5                           | 6.0     |
| 1/8 G2 Tape Autoloader (Ultrium 920 SAS)  | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 11d <sup>4</sup>   |                                   |                  | 6.5                           | 6.0     |
| 1/8 G2 Tape Autoloader (Ultrium 448)      | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>3</sup>   | 9.2 <sup>6</sup>                  | 9.0 <sup>6</sup> | 6.5                           | 6.0     |
| 1/8 G2 Tape Autoloader (Ultrium 232)      | 6.0                  | 5.5     | 12.0 <sup>9</sup>        | 11.5              | 7.4           | 7.0     | 5.5                           | 5.3              | 12.0                              | 10d <sup>3</sup>   | 9.2 <sup>6</sup>                  | 9.0 <sup>6</sup> | 6.5                           | 6.0     |

### NOTES:

- 1) Use the latest backup application maintenance release unless otherwise noted. Refer to the backup application vendor for specific operating system support, patches, builds, and drivers required to support HP tape automation and virtual library products.
- 2) Backup Exec version 10d and Device Driver Installer (DDI) version 20060615 or later are required to support the HP StorageWorks MSL2024 and MSL4048 Tape Automation Libraries.
- 3) Backup Exec version 10d and Device Driver Installer (DDI) version 20061015 or later are required to support the HP StorageWorks 1/8 G2 Tape Autoloaders.
- 4) Backup Exec 11d and Device Driver Installer (DDI) version 20061215 or later are required to support HP StorageWorks Ultrium 920 SAS drives in HP libraries.
- 5) Configurations running an HP VLS1000i virtual tape library must use the "HP VLS1000i" emulation in order to function properly.
- 6) BENW 9.x Driver SET 2 is required for Ultrium 232 and 448 1/8 G2 Autoloader support. Also, multi-LUN support must be enabled on the SCSI HBA.
- 7) VLS models 6200, 6600, and the 12000 EVA Gateway running software version 2.0.0 are not currently supported with ARCserve 11.1, 11.5 or 12 running on Linux. See Customer Advisory "[c01181673](#)" for further details.
- 8) TSM 5.4.2 or later is required to support LTO4 drives
- 9) **CA ARCserve 12.0 only supports Windows based media servers.**

**Advanced Library Features**

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

**NOTES:**

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

Libraries and Interface Controllers

(page 1 of 2)

| DAF and SAN Support                        | e2400-FC 4Gb (FC-FC) | e2400-FC 2Gb (FC-FC) | e2400-160 (FC-SCSI) | Native FC Connection | e1200-320 4Gb (FC-SCSI) | NSR E1200-160  | NSR M2402      | NSR N1200-320 4Gb | NSR N1200 |
|--|----------------------|----------------------|---------------------|----------------------|-------------------------|----------------|----------------|-------------------|-----------|
| ESL E-Series 712e/322e (Ultrium 1840 FC)   |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| 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 (SDLT600)           |                      |                      | ✓                   |                      |                         |                |                |                   |           |
| EML E-Series (Ultrium 1840 FC)             |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| EML E-Series (Ultrium 960 FC)              | ✓                    | ✓                    |                     |                      |                         |                |                |                   |           |
| EML E-Series (Ultrium 460 FC)              | ✓                    | ✓                    |                     |                      |                         |                |                |                   |           |
| ESL E-Series Cross Link                    | ✓                    | ✓                    | ✓                   |                      |                         |                |                |                   |           |
| Interface Manager                          | ✓                    | ✓                    | ✓                   |                      |                         |                |                |                   |           |
| MSL 6060 (Ultrium 1840)                    |                      |                      |                     |                      | ✓                       | ✓ <sup>4</sup> | ✓ <sup>4</sup> |                   |           |
| MSL 6060 (Ultrium 960)                     |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6060 (Ultrium 460)                     |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6052 (SDLT 600)                        |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6030 (Ultrium 1840)                    |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6030 (Ultrium 960)                     |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6030 (Ultrium 460)                     |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6026 (SDLT 600)                        |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 6000 Multi-Unit Scalability            |                      |                      |                     |                      | ✓                       | ✓              | ✓              |                   |           |
| MSL 8096 (Ultrium 1840 FC) <sup>1</sup>    |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 8096 (Ultrium 1840 SCSI)               |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 8096 (Ultrium 960 4Gb FC) <sup>1</sup> |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 8096 (Ultrium 960 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 4048 (Ultrium 1840 FC) <sup>1</sup>    |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 4048 (Ultrium 1840 SCSI)               |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 4048 (Ultrium 960 4Gb FC) <sup>1</sup> |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 4048 (Ultrium 960 FC) <sup>1</sup>     |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 4048 (Ultrium 960 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 4048 (Ultrium 920 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 4048 (Ultrium 448 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 2024 (Ultrium 1840 FC) <sup>1</sup>    |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 2024 (Ultrium 1840 SCSI)               |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 2024 (Ultrium 960 4Gb FC) <sup>1</sup> |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 2024 (Ultrium 960 FC) <sup>1</sup>     |                      |                      |                     | ✓                    |                         |                |                |                   |           |
| MSL 2024 (Ultrium 960 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 2024 (Ultrium 920 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |
| MSL 2024 (Ultrium 448 SCSI)                |                      |                      |                     |                      |                         |                |                | ✓                 | ✓         |

NOTES:

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

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.

4) Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.

**Interface Controllers**

(page 2 of 2)

| <b>Interface Manager Firmware<br/>Required Minimum Component</b> | <b>i160</b> | <b>i161</b> | <b>i170</b> | <b>i171</b> | <b>i180</b> | <b>i182</b>      | <b>i200</b> | <b>i220</b> | <b>i230</b> | <b>i231<sup>1</sup></b> |
|--|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|-------------------------|
| e2400-FC 4Gb<br>Interface Controller (FC-FC)                     | N/A         | 5.7.06      | 5.7.18      | 5.7.1b      | 5.7.1f      | 5.9.28           | 5.9.28      | 5.9.29      | 5.9.36      | 5.9.3d                  |
| e2400-FC 2Gb<br>Interface Controller (FC-FC)                     | 5.6.78      | 5.6.7a      | 5.6.87      | 5.6.87      | 5.6.8c      | 5.9.28           | 5.9.28      | 5.9.29      | 5.9.36      | 5.9.3d                  |
| e2400-160<br>Interface Controller (FC-SCSI)                      | 5.6.78      | 5.6.7a      | 5.6.87      | 5.6.87      | 5.6.8c      | 5.9.28           | 5.9.28      | 5.9.29      | 5.9.36      | 5.9.3d                  |
| NSR E2400  | 5.6.78      | 5.6.7a      | 5.6.87      | 5.6.87      | 5.6.8c      | 5.9.28           | 5.9.28      | 5.9.29      | 5.9.36      | 5.9.3d                  |
| NSR E1200-160  | 5.6.78      | 5.6.7a      | 5.6.87      | 5.6.87      | 5.6.8c      | 5.9.28           | 5.9.28      | 5.9.29      | 5.9.36      | 5.9.3d                  |
| ESL E-Series   | 4.10        | 4.10        | 4.60        | 4.60        | 4.86        |                  | 5.10        | 6.00        | 6.20        | 6.22                    |
| EML E-Series   | 1022        | 1022        | 1022        | 1022        | 1070        |                  | 1126        | 1200        | 1222        | 1222                    |
| JAVA Run Time  | 1.4.2       | 1.4.2       | 1.4.2       | 1.4.2       | 1.4.2       | 1.4.2            | 1.4.2       | 1.4.2       | 1.4.2       | 1.4.2                   |
| Command View TL  | 1.6.00      | 1.6.01      | 1.7         | 1.7         | 1.8.00      | 1.8.00 or 2.0.00 | 2.0.00      | 2.2.00      | 2.3.00      | 2.3.01                  |

| <b>Interface Controller Firmware<br/>(non-Interface Manager)</b> |        |
|--|--------|
| e1200-320 4Gb (MSL6000)  | 5.9.3d |
| N1200-320 4Gb  | 5.9.3d |

**NOTES:**

1) HP Secure Key Manager (SKM) requires ESLe LTO4 drive firmware version H36W or later and EMLe LTO4 drive firmware version H36S or later and that the libraries and Interface Controllers use firmware package i231 or later.

# HP StorageWorks EBS Compatibility Matrix

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

| DAS, DAF, and SAN Support                                       | HP Data Protector                             | CA ARCserve <sup>9</sup>                 | EMC NetWorker   | IBM Tivoli Storage Manager                   | Symantec Backup Exec | Symantec Veritas NetBackup                         |
|---|---|--|---|--|----------------------|--|
| <b>Operating Systems <sup>1, 2</sup></b>                        |   |  |   |  |                      |  |
| HP-UX 11.11 (11i v1)  | HWE 11i v1, June 2005 Quality Pack. June 2005 | HWE 11i v1, Dec 2004 Gold Pack, Dec 2004 | HWE 11i v1, Dec 2007 Quality Pack Dec 2007                            | HWE 11i v1, Dec 2004 Gold Pack, Dec 2004     |                      | <b>HWE 11i v1, Dec 2007 Quality Pack. Dec 2007</b> |
| HP-UX 11.23 (11i v2)  | HWE 11i v2 March 2006 Quality Pack March 2006 |  | HWE 11i v2 Dec 2007 Quality Pack Dec 2007                             | HWE 11i v2 June 2006 Quality Pack March 2006 |                      | HWE 11i v2 Dec 2007 Quality Pack Dec 2007          |
| HP-UX 11.31 (11i v3)  | ✓ <sup>7</sup>                                |  | HWE 11i v3 Sept 2007 <sup>8</sup> Quality Pack Sept 2007 <sup>8</sup> |  |                      |  |
| <b>Servers</b>  |   |  |   |  |                      |  |
| HP 9000 Superdome and Mid-Range (rp7000-rp8000 Series, PA-RISC) | ✓   | ✓  | ✓   | ✓  |                      | ✓  |
| HP 9000 Entry-Level (rp2000-rp5000 Series, PA-RISC)             | ✓   | ✓  | ✓   | ✓  |                      | ✓  |
| HP A, L, N, and V Class (PA-RISC)                               | ✓   | ✓  | ✓   | ✓  |                      | ✓  |
| HP R Class (PA-RISC) <sup>3</sup>                               | ✓   | ✓  | ✓   | ✓  |                      | ✓  |
| <b>4Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>         |   |  |   |  |                      |  |
| AD193A / AD194A (4G, PCI-X 2.0, Combo Card)                     |   |  |   |  |                      |  |
| FW  | 4.0.91  |  | 4.0.91  | 4.0.91                                       |                      | 4.0.91   |
| fcd Driver  | Native  |  | Native  | Native                                       |                      | Native   |
| AB379A / AB379B (4G, PCI-X 2.0)                                 |   |  |   |  |                      |  |
| FW  | 4.00.70                                       |  | 4.00.70   | 4.00.70                                      |                      | 4.00.70  |
| fcd Driver  | Native  |  | Native  | Native                                       |                      | Native   |
| AB378A / AB378B (4G, PCI-X 2.0)                                 |   |  |   |  |                      |  |
| FW  | 4.00.70                                       |  | 4.00.70   | 4.00.70                                      |                      | 4.00.70  |
| fcd Driver  | Native  |  | Native  | Native                                       |                      | Native   |
| <b>2Gb Fibre Channel Host Bus Adapters <sup>5</sup></b>         |   |  |   |  |                      |  |
| AB465A (2G, PCI-X, 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, PCI-X, 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, PCI-X, 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, PCI-X)  |   |  |   |  |                      |  |
| 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, PCI)  |   |  |   |  |                      |  |
| td Driver   | Native  | Native                                   | Native  | Native                                       |                      | Native   |
| <b>Disk Array Multipath Support <sup>5</sup></b>                |   |  |   |  |                      |  |
| Secure Path for HP-UX   | 3.0F SP2 patch 2                              | 3.0F SP2 patch 2                         | 3.0F SP2 patch 2  | 3.0F SP2 patch 2                             |                      | 3.0F SP2 patch 2                                   |
| <b>High Availability <sup>4</sup></b>                           |   |  |   |  |                      |  |
| MC/ServiceGuard   | ✓ <sup>3</sup>                                |  | ✓ <sup>3</sup>  |  |                      |  |

### 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 O/S's not listed, please refer to the ISV's web page for supported HA configurations.

- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 6) For Boot from Tape support, [click here](#), and select the type of tape for compatibility.
- 7) DP 5.5 support only
- 8) The HPUX 11.31 PHKL\_36312 patch is required to support the NetWorker 7.4 CDI driver.
- 9) **Supported with CA ARCserve 11.5 only**

# HP StorageWorks EBS Compatibility Matrix

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

| DAS, DAF, and SAN Support   | HP<br>Data Protector                         | CA ARCserve <sup>9</sup>                     | EMC NetWorker  | IBM<br>Tivoli Storage Manager                | Symantec<br>Backup Exec | Symantec Veritas<br>NetBackup                        |
|---|--|--|--|--|-------------------------|--|
| <b>Operating Systems<sup>1, 2</sup></b>                                       |  |  |  |  |                         |  |
| HP-UX 11.23 (11i v2)  | HWE 11i v2 Dec 2007<br>Quality Pack Dec 2007 | HWE 11i v2 May 2005<br>Quality Pack May 2005 | HWE 11i v2 Dec 2007<br>Quality Pack Dec 2007                                 | HWE 11i v2 Dec 2007<br>Quality Pack Dec 2007 |                         | <b>HWE 11i v2 Dec 2007<br/>Quality Pack Dec 2007</b> |
| HP-UX 11.31 (11i v3)  |  |  | <b>HWE 11i v3 Mar 2008<sup>7</sup><br/>Quality Pack Mar 2008<sup>7</sup></b> |  |                         |  |
| <b>Servers</b>  |  |  |  |  |                         |  |
| HP Integrity Superdome and<br>Mid-Range (rx7000-rx8000 Series, Integrity)     | ✓  | ✓  | ✓  | ✓  |                         | ✓  |
| HP Integrity Entry-Level<br>(rx1000-rx6000 Series, Integrity)                 | ✓  | ✓  | ✓  | ✓  |                         | ✓  |
| HP ProLiant c-Class BladeSystem   |  |  |  |  |                         | ✓  |
| <b>4Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>                        |  |  |  |  |                         |  |
| AD299A / AD355A (4G, PCI-e) <sup>8</sup>                                      |  |  |  |  |                         |  |
| FW  | 2.70X5                                       |  | 2.70X5   | 2.70X5                                       |                         | 2.70X5   |
| <b>fclp Driver</b>  | Native <sup>8</sup>                          |  | Native <sup>8</sup>  | Native <sup>8</sup>                          |                         | Native <sup>8</sup>                                  |
| AD300A / QLogic QLE2462 (4G, PCI-e)   |  |  |  |  |                         |  |
| FW  | <b>4.0.91</b>                                |  |  | 4.0.91                                       |                         | <b>4.0.91</b>  |
| fcd Driver  | <b>Native</b>                                |  |  | Native                                       |                         | <b>Native</b>  |
| AD193A / AD194A (4G, PCI-X 2.0, Combo Card)                                   |  |  |  |  |                         |  |
| FW  | 4.0.91                                       |  | 4.0.91   | 4.0.91                                       |                         | 4.0.91   |
| fcd Driver  | Native                                       |  | Native   | Native                                       |                         | Native   |
| AB379A / AB379B (4G, PCI-X 2.0)   |  |  |  |  |                         |  |
| FW  | 4.00.70                                      |  | 4.00.70  | 4.00.70                                      |                         | 4.00.70  |
| fcd Driver  | Native                                       |  | Native   | Native                                       |                         | Native   |
| AB378A / AB378B (4G, PCI-X 2.0)   |  |  |  |  |                         |  |
| FW  | 4.00.70                                      |  | 4.00.70  | 4.00.70                                      |                         | 4.00.70  |
| fcd Driver  | Native                                       |  | Native   | Native                                       |                         | Native   |
| <b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters<sup>4</sup></b> |  |  |  |  |                         |  |
| QMH2462 (4G, PCI-e) for HP c-Class BladeSystem (403619-B21)                   |  |  |  |  |                         |  |
| <b>EFI</b>  | <b>1.09</b>                                  |  | <b>1.09</b>  | <b>1.09</b>                                  |                         | <b>1.09</b>  |
| fcd Driver  | Native                                       |  | Native   | Native                                       |                         | Native   |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>4</sup></b>                        |  |  |  |  |                         |  |
| AB465A (2G, PCI-X, 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, PCI-X, 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, PCI-X, 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, PCI-X)  |  |  |  |  |                         |  |
| 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, PCI)  |  |  |  |  |                         |  |
| FW  | 1.10   | 1.10   | 1.10   | 1.10   |                         | 1.10   |
| td Driver   | Native                                       | Native                                       | Native   | Native                                       |                         | Native   |
| <b>Disk Array Multipath Support<sup>4</sup></b>                               |  |  |  |  |                         |  |
| Secure Path for HP-UX   | 3.0F SP2 patch 2                             | 3.0F SP2 patch 2                             | 3.0F SP2 patch 2   | 3.0F SP2 patch 2                             |                         | 3.0F SP2 patch 2                                     |
| <b>High Availability<sup>6</sup></b>  |  |  |  |  |                         |  |
| MC/ServiceGuard   | ✓ <sup>3</sup>                               |  | ✓ <sup>3</sup>   |  |                         |  |

### 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.

- 7) The HP-UX 11.31 PHKL\_36312 patch is required to support the NetWorker 7.4 CDI driver
- 8) Requires FibreChanl-02 driver
- 9) **Supported with CA ARCserve 11.5 only**

# HP StorageWorks EBS Compatibility Matrix

## Windows (x86)

(page 1 of 3)

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

### 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) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB891793 (minimum) or KB916048 (recommended). All sp2 systems are required to run Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB932755.

- 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 (x86)

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| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|-------------|---------------|----------------------------|----------------------|----------------------------|
| <b>2Gb Fibre Channel Host Bus Adapters<sup>1,2</sup> (HP Branded / 3rd Party)</b>                                    |                   |             |               |                            |                      |                            |
| A7560A / Emulex LP1050EX (2G, PCI-e)<br>A7388A / Emulex LP1050 (2G, PCI-X)<br>A7387A / Emulex LP1050DC (2G, PCI-X)   |                   |             |               |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5      | 1.91a5        | 1.91a5                     | 1.91a5               | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 5-5.30a2          | 5-5.30a2    | 5-5.30a2      | 5-5.30a2                   | 5-5.30a2             | 5-5.30a2                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 5-2.00a12         | 5-2.00a12   | 5-2.00a12     | 5-2.00a12                  | 5-2.00a12            | 5-2.00a12                  |
| <b>WIN 2008 StorPort Driver<sup>4</sup></b>  |                   |             |               |                            | <b>5-2.00a12</b>     |                            |
| FCA2408 / Emulex LP982 (2G, PCI-X)<br>FCA2404 / Emulex LP9802 (2G, PCI-X)<br>FCA2404DC / Emulex LP9802DC (2G, PCI-X) |                   |             |               |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5      | 1.91a5        | 1.91a5                     | 1.91a5               | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 5-5.30a2          | 5-5.30a2    | 5-5.30a2      | 5-5.30a2                   | 5-5.30a2             | 5-5.30a2                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 5-2.00a12         | 5-2.00a12   | 5-2.00a12     | 5-2.00a12                  | 5-2.00a12            | 5-2.00a12                  |
| <b>WIN 2008 StorPort Driver<sup>4</sup></b>  |                   |             |               |                            | <b>5-2.00a12</b>     |                            |
| FCA2101 / Emulex LP952 (2G, PCI-X)<br>FCA2355 / Emulex LP9002DC (2G, PCI-X)  |                   |             |               |                            |                      |                            |
| FW   | 3.93a0            | 3.93a0      | 3.93a0        | 3.93a0                     | 3.93a0               | 3.93a0                     |
| WIN 2003 SCSIport Driver   | 5-5.30a2          | 5-5.30a2    | 5-5.30a2      | 5-5.30a2                   | 5-5.30a2             | 5-5.30a2                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 5-2.00a12         | 5-2.00a12   | 5-2.00a12     | 5-2.00a12                  | 5-2.00a12            | 5-2.00a12                  |
| FCA2214 / QLogic QLA2340 (2G, PCI-X)<br>FCA2214DC / QLogic QLA2342 (2G, PCI-X)                                       |                   |             |               |                            |                      |                            |
| FW   | 1.45              | 1.45        | 1.45          | 1.45                       | 1.45                 | 1.45                       |
| WIN 2003 SCSIport Driver   | 9.1.3.11          | 9.1.3.11    | 9.1.3.11      | 9.1.3.11                   | 9.1.3.11             | 9.1.3.11                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 9.1.3.18          | 9.1.3.18    | 9.1.3.18      | 9.1.3.18                   | 9.1.3.18             | 9.1.3.18                   |
| <b>WIN 2008 StorPort Driver<sup>4</sup></b>  |                   |             |               |                            | <b>9.1.6.15</b>      |                            |
| <b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters<sup>5</sup></b>  |                   |             |               |                            |                      |                            |
| Emulex Mezzanine Card for p-Class Blades (2G, PCI-X)   |                   |             |               |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5      | 1.91a5        | 1.91a5                     | 1.91a5               | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 5-5.30a2          | 5-5.30a2    | 5-5.30a2      | 5-5.30a2                   | 5-5.30a2             | 5-5.30a2                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 5-2.00a12         | 5-2.00a12   | 5-2.00a12     | 5-2.00a12                  | 5-2.00a12            | 5-2.00a12                  |
| <b>WIN 2008 StorPort Driver<sup>4</sup></b>  |                   |             |               |                            | <b>5-2.00a12</b>     |                            |
| QLogic Balcony Card for p-Class Blades (2G, PCI-X)<br>QLogic Mezzanine Card for p-Class Blades (2G, PCI-X)           |                   |             |               |                            |                      |                            |
| FW (BL25p)   | 1.48              | 1.48        | 1.48          | 1.48                       | 1.48                 | 1.48                       |
| FW (BL20p, BL30p, and BL35p)   | 1.48              | 1.48        | 1.48          | 1.48                       | 1.48                 | 1.48                       |
| WIN 2003 SCSIport Driver   | 9.1.3.11          | 9.1.3.11    | 9.1.3.11      | 9.1.3.11                   | 9.1.3.11             | 9.1.3.11                   |
| WIN 2003 StorPort Driver <sup>3,4</sup>  | 9.1.3.18          | 9.1.3.18    | 9.1.3.18      | 9.1.3.18                   | 9.1.3.18             | 9.1.3.18                   |
| <b>WIN 2008 StorPort Driver<sup>4</sup></b>  |                   |             |               |                            | <b>9.1.6.15</b>      |                            |

NOTES:

- 1) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 2) 3rd Party adapters require HP drivers and firmware.

- 3) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB891793 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB932755.
- 4) Please reference ISV application installation/support documents for specific driver and patch requirements.



## Windows (x86)

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

**NOTES:**

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

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

3) Not supported with TSM 5.3.x.

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.

**Windows (Integrity)**

| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve      | EMC NetWorker    | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|------------------|------------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems</b> <sup>1, 2</sup>                               |                   |                  |                  |                            |                      |                            |
| Windows Server 2003 (64-bit)   | sp2               | sp2              | sp2              | sp2                        |                      | sp2                        |
| <b>Servers</b>   |                   |                  |                  |                            |                      |                            |
| HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity) | ✓                 | ✓                | ✓                | ✓                          |                      | ✓                          |
| HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)             | ✓                 | ✓                | ✓                | ✓                          |                      | ✓                          |
| <b>Fibre Host Bus Adapters</b> <sup>4, 7</sup>                         |                   |                  |                  |                            |                      |                            |
| <b>HP Branded / 3rd Party</b>  |                   |                  |                  |                            |                      |                            |
| <b>LPe1105 (4G, PCI-e) for HP c-Class BladeSystem</b>                  |                   |                  |                  |                            |                      |                            |
| <b>FW</b>  | <b>2.72a2</b>     | <b>2.72a2</b>    | <b>2.72a2</b>    | <b>2.72a2</b>              |                      | <b>2.72a2</b>              |
| <b>WIN 2003 StorPort Driver</b> <sup>5, 8</sup>                        | <b>6-2.00a12</b>  | <b>6-2.00a12</b> | <b>6-2.00a12</b> | <b>6-2.00a12</b>           |                      | <b>6-2.00a12</b>           |
| A8002A / Emulex LPe1150 (4G, PCI-e)                                    |                   |                  |                  |                            |                      |                            |
| A8003A / Emulex LPe11002 (4G, PCI-e)                                   |                   |                  |                  |                            |                      |                            |
| FW   | 2.72a2            | 2.72a2           | 2.72a2           | 2.72a2                     |                      | 2.72a2                     |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 6-2.00a12         | 6-2.00a12        | 6-2.00a12        | 6-2.00a12                  |                      | 6-2.00a12                  |
| AE311A / QLogic QLE2460 (4G, PCI-e)                                    |                   |                  |                  |                            |                      |                            |
| AD300A / QLogic QLE2462 (4G, PCI-e)                                    |                   |                  |                  |                            |                      |                            |
| EFI  | 1.09              | 1.09             | 1.09             | 1.09                       |                      | 1.09                       |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 9.1.3.18          | 9.1.3.18         | 9.1.3.18         | 9.1.3.18                   |                      | 9.1.3.18                   |
| AD167A / Emulex LP1150 (4G, PCI-X 2.0)                                 |                   |                  |                  |                            |                      |                            |
| AD168A / Emulex LP11002 (4G, PCI-X 2.0)                                |                   |                  |                  |                            |                      |                            |
| FW   | 2.72a2            | 2.72a2           | 2.72a2           | 2.72a2                     |                      | 2.72a2                     |
| WIN 2003 SCSIport Driver   | 6-5.30a2          | 6-5.30a2         | 6-5.30a2         | 6-5.30a2                   |                      | 6-5.30a2                   |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 6-2.00a12         | 6-2.00a12        | 6-2.00a12        | 6-2.00a12                  |                      | 6-2.00a12                  |
| AB429A / Qlogic QLA2460 (4G, PCI-X 2.0)                                |                   |                  |                  |                            |                      |                            |
| AB379A/B / Qlogic QLA2462 (4G, PCI-X 2.0)                              |                   |                  |                  |                            |                      |                            |
| EFI  | 1.09              | 1.09             | 1.09             | 1.09                       |                      | 1.09                       |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 9.1.3.18          | 9.1.3.18         | 9.1.3.18         | 9.1.3.18                   |                      | 9.1.3.18                   |
| AB467A / Emulex LP1050 (2G, PCI-X)                                     |                   |                  |                  |                            |                      |                            |
| AB466A / Emulex LP1050DC (2G, PCI-X)                                   |                   |                  |                  |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5           | 1.91a5           | 1.91a5                     |                      | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 6-5.30a2          | 6-5.30a2         | 6-5.30a2         | 6-5.30a2                   |                      | 6-5.30a2                   |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 6-1.20a7          | 6-1.20a7         | 6-1.20a7         | 6-1.20a7                   |                      | 6-1.20a7                   |
| A7298A / Emulex LP982 (2G, PCI-X)                                      |                   |                  |                  |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5           | 1.91a5           | 1.91a5                     |                      | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 6-5.30a2          | 6-5.30a2         | 6-5.30a2         | 6-5.30a2                   |                      | 6-5.30a2                   |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 6-1.20a7          | 6-1.20a7         | 6-1.20a7         | 6-1.20a7                   |                      | 6-1.20a7                   |
| AB232A / Emulex LP9802 (2G, PCI-X)                                     |                   |                  |                  |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5           | 1.91a5           | 1.91a5                     |                      | 1.91a5                     |
| WIN 2003 SCSIport Driver   | 6-5.30a2          | 6-5.30a2         | 6-5.30a2         | 6-5.30a2                   |                      | 6-5.30a2                   |
| WIN 2003 StorPort Driver <sup>5, 8</sup>                               | 6-1.20a7          | 6-1.20a7         | 6-1.20a7         | 6-1.20a7                   |                      | 6-1.20a7                   |
| <b>Disk Array Multipath Support</b> <sup>4</sup>                       |                   |                  |                  |                            |                      |                            |
| 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   | ✓                 | ✓                | ✓                | ✓                          |                      | ✓                          |
| <b>High Availability</b> <sup>3</sup>                                  |                   |                  |                  |                            |                      |                            |
| 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) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB891793 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB932755.

# HP StorageWorks EBS Compatibility Matrix

## Windows (x64)

(Page 1 of 2)

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

### 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) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB903081 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB932755.
- 7) Please reference ISV application installation/support documents for specific driver and patch requirements.

**Windows (x64)**

(Page 2 of 2)

| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|-------------|---------------|----------------------------|----------------------|----------------------------|
| <b>2Gb Fibre Channel Host Bus Adapters<sup>4,5</sup> (HP Branded / 3rd Party)</b>                                |                   |             |               |                            |                      |                            |
| FCA2408 / Emulex LP982 (2G, PCI-X)<br>A7388A / Emulex LP1050 (2G, PCI-X)<br>A7387A / Emulex LP1050DC (2G, PCI-X) |                   |             |               |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5      | 1.91a5        | 1.91a5                     | 1.91a5               | 1.91a5                     |
| WIN 2003 StorPort Driver <sup>6,7</sup>  | 7-2.00a12         | 7-2.00a12   | 7-2.00a12     | 7-2.00a12                  | 7-2.00a12            | 7-2.00a12                  |
| <b>WIN 2008 StorPort Driver<sup>7</sup></b>  |                   |             |               |                            | <b>7-2.00a12</b>     |                            |
| FCA2404 / Emulex LP9802 (2G, PCI-X)<br>FCA2404DC / Emulex LP9802DC (2G, PCI-X)                                   |                   |             |               |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5      | 1.91a5        | 1.91a5                     | 1.91a5               | 1.91a5                     |
| WIN 2003 StorPort Driver <sup>6,7</sup>  | 7-2.00a12         | 7-2.00a12   | 7-2.00a12     | 7-2.00a12                  | 7-2.00a12            | 7-2.00a12                  |
| <b>WIN 2008 StorPort Driver<sup>7</sup></b>  |                   |             |               |                            | <b>7-2.00a12</b>     |                            |
| <b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters<sup>4</sup></b>                                    |                   |             |               |                            |                      |                            |
| QLogic Balcony Card for p-Class Blades (2G, PCI-X)<br>QLogic Mezzanine Card for p-Class Blades (2G, PCI-X)       |                   |             |               |                            |                      |                            |
| FW (BL25p)   | 1.48              | 1.48        | 1.48          | 1.48                       | 1.48                 | 1.48                       |
| FW (BL20p, BL30p, and BL35p)   | 1.48              | 1.48        | 1.48          | 1.48                       | 1.48                 | 1.48                       |
| WIN 2003 StorPort Driver <sup>6,7</sup>  | 9.1.3.18          | 9.1.3.18    | 9.1.3.18      | 9.1.3.18                   | 9.1.3.18             | 9.1.3.18                   |
| <b>WIN 2008 StorPort Driver<sup>7</sup></b>  |                   |             |               |                            | <b>9.1.6.15</b>      |                            |
| <b>Disk Array Multipath Support<sup>4</sup></b>  |                   |             |               |                            |                      |                            |
| Windows MPIO   | ✓                 | ✓           | ✓             | ✓                          | ✓                    | ✓                          |
| <b>High Availability<sup>3</sup></b>   |                   |             |               |                            |                      |                            |
| 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) All non-sp2 systems running applications other than Tivoli require updated Storport.sys KB903081 (minimum) or KB916048 (recommended); systems running Tivoli require Storport.sys KB901371. All sp2 systems are required to run Storport.sys KB932755.
- 7) Please reference ISV application installation/support documents for specific driver and patch requirements.

# HP StorageWorks EBS Compatibility Matrix

**LINUX (x86) 4,6**

(page 1 of 2)

| DAS, DAF, and SAN Support   | HP Data Protector | CA ARCserve 7 | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|---|-------------------|---------------|---------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems 1, 2</b>   |                   |               |               |                            |                      |                            |
| Red Hat Enterprise Linux [AS/ES/WS] 3.0 (32-bit)                        | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| Red Hat Enterprise Linux [AS/ES/WS] 4.0 (32-bit)                        | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| Red Hat Enterprise Linux [AS/ES/WS] 5.0 (32-bit)                        | ✓                 |               | ✓             | ✓                          |                      | ✓                          |
| SUSE SLES 9 (32-bit)  | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| SUSE SLES 10 (32-bit)   | ✓                 |               | ✓             | ✓                          |                      | ✓                          |
| <b>Servers</b>  |                   |               |               |                            |                      |                            |
| HP ProLiant   | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| HP ProLiant c-Class BladeSystem   | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| HP ProLiant p-Class BladeSystem   | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| Third Party X86   | ✓                 | ✓             | ✓             | ✓                          |                      | ✓                          |
| <b>8Gb Fibre Channel Host Bus Adapters 3,5 (HP Branded / 3rd Party)</b> |                   |               |               |                            |                      |                            |
| QLogic QLE2560 (8G, PCIe)   |                   |               |               |                            |                      |                            |
| BIOS  | 2.00              |               | 2.00          | 2.00                       |                      | 2.00                       |
| Red Hat Enterprise Linux 5.0 driver                                     | 8.02.03           |               | 8.02.03       | 8.02.03                    |                      | 8.02.03                    |
| SUSE SLES 10 driver   | 8.02.03           |               | 8.02.03       | 8.02.03                    |                      | 8.02.03                    |
| <b>4Gb Fibre Channel Host Bus Adapters 3,5 (HP Branded / 3rd Party)</b> |                   |               |               |                            |                      |                            |
| FC2142SR / Emulex LPe1150 (4G, PCIe)                                    |                   |               |               |                            |                      |                            |
| FC2242SR DC / Emulex LPe11002-M4 (4G, PCIe)                             |                   |               |               |                            |                      |                            |
| FW  | 2.70a5            | 2.70a5        | 2.70a5        | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 3.0 driver                                     | 7.3.6             | 7.3.6         | 7.3.6         |                            |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver                                     | 8.0.16.27         | 8.0.16.27     | 8.0.16.27     | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver                                     |                   |               | 8.1.6.7       | 8.1.6.7                    |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27     | 8.0.16.27     | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |               | 8.1.6.7       | 8.1.6.7                    |                      | 8.1.6.7                    |
| FC1142SR / QLogic QLE2460 (4G, PCIe)                                    |                   |               |               |                            |                      |                            |
| FC1242SR DC / QLE2462 (4G, PCIe)  |                   |               |               |                            |                      |                            |
| BIOS  | 1.26              | 1.26          | 1.26          | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 3.0 driver                                     | 7.07.05           | 7.07.05       | 7.07.05       |                            |                      | 7.07.05                    |
| Red Hat Enterprise Linux 4.0 driver                                     | 8.01.07.25        | 8.01.06       | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| Red Hat Enterprise Linux 5.0 driver                                     | 8.01.07.25        |               | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| SUSE SLES 9 driver  | 8.01.07.25        | 8.01.06       | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| SUSE SLES 10 driver   | 8.01.07.25        |               | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| FC2143 / Emulex LP1150 (4G, PCI-X 2.0)                                  |                   |               |               |                            |                      |                            |
| FC2243 / Emulex LP11002 (4G, PCI-X 2.0)                                 |                   |               |               |                            |                      |                            |
| FW  | 2.70a5            | 2.70a5        | 2.70a5        | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 3.0 driver                                     | 7.3.6             | 7.3.6         | 7.3.6         |                            |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver                                     | 8.0.16.27         | 8.0.16.27     | 8.0.16.27     | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver                                     |                   |               | 8.1.6.7       | 8.1.6.7                    |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27     | 8.0.16.27     | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |               | 8.1.6.7       | 8.1.6.7                    |                      | 8.1.6.7                    |
| FC1143 / QLogic QLA2460 (4G, PCI-X 2.0)                                 |                   |               |               |                            |                      |                            |
| FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)                                 |                   |               |               |                            |                      |                            |
| BIOS  | 1.26              | 1.26          | 1.26          | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 4.0 driver                                     | 8.01.07.25        | 8.01.06       | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| Red Hat Enterprise Linux 5.0 driver                                     | 8.01.07.25        |               | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| SUSE SLES 9 driver  | 8.01.07.25        | 8.01.06       | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |
| SUSE SLES 10 driver   | 8.01.07.25        |               | 8.01.07.25    | 8.01.07.25                 |                      | 8.01.07.25                 |

**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.

**7) Supported with CA ARCserve 11.5 only**

# HP StorageWorks EBS Compatibility Matrix

## LINUX (x86) <sup>4,6</sup>

(page 2 of 2)

| DAS, DAF, and SAN Support   | HP Data Protector | CA ARCserve <sup>7</sup> | EMC NetWorker     | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|---|-------------------|--------------------------|-------------------|----------------------------|----------------------|----------------------------|
| <b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters <sup>3,5</sup></b>  |                   |                          |                   |                            |                      |                            |
| LPe1105 (4G, PCI-e) for HP c-Class BladeSystem                                    |                   |                          |                   |                            |                      |                            |
| FW  | 2.70a5            | 2.70a5                   | 2.70a5            | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 4.0 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| QMH2462 (4G, PCI-e) for HP c-Class BladeSystem                                    |                   |                          |                   |                            |                      |                            |
| BIOS  | 1.26              | 1.26                     | 1.26              | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 4.0 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>3,5</sup> (HP Branded / 3rd Party)</b> |                   |                          |                   |                            |                      |                            |
| FCA2214 / QLogic 2340 (2G, PCI-X)   |                   |                          |                   |                            |                      |                            |
| FCA2214DC / QLogic 2342 (2G, PCI-X)   |                   |                          |                   |                            |                      |                            |
| BIOS  | 1.45              | 1.45                     | 1.45              | 1.45                       |                      | 1.45                       |
| Red Hat Enterprise Linux 3.0 driver   | 7.07.05           | 7.07.05                  | 7.07.05           | 7.07.05                    |                      | 7.07.05                    |
| Red Hat Enterprise Linux 4.0 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters <sup>3,5</sup></b>  |                   |                          |                   |                            |                      |                            |
| Emulex Mezzanine Card for p-Class Blades (2G, PCI-X)                              |                   |                          |                   |                            |                      |                            |
| FW  | 1.91a5            | 1.91a5                   | 1.91a5            | 1.91a5                     |                      | 1.91a5                     |
| Red Hat Enterprise Linux 3.0 driver   | 7.3.6             | 7.3.6                    | 7.3.6             | 7.3.6                      |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| QLogic Balcony Card for p-Class Blades (2G, PCI-X)                                |                   |                          |                   |                            |                      |                            |
| QLogic Mezzanine Card for BL20p G2/G3 (2G, PCI-X)                                 |                   |                          |                   |                            |                      |                            |
| FW (BL25p)  | 1.48              | 1.48                     | 1.48              | 1.48                       |                      | 1.48                       |
| FW (BL20p, BL30p, and BL35p)  | 1.48              | 1.48                     | 1.48              | 1.48                       |                      | 1.48                       |
| Red Hat Enterprise Linux 3.0 driver   | 7.07.05           | 7.07.05                  | 7.07.05           | 7.07.05                    |                      | 7.07.05                    |
| Red Hat Enterprise Linux 4.0 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>Disk Array Multipath Support <sup>3</sup></b>                                  |                   |                          |                   |                            |                      |                            |
| Emulex Multipulse (2.6 kernels only)  | 2.1.9             | 2.1.9                    | 2.1.9             | 2.1.9                      |                      | 2.2.20                     |
| QLogic Native Multi-Path for Linux (2.4 kernel)                                   | 7.07.05           | 7.07.05                  | 7.07.05           | 7.07.05                    |                      | 7.07.05                    |
| QLogic Native Multi-Path for Linux (2.6 kernel)                                   | 8.01.07.25        | 8.01.07.25               | 8.01.07.25        | 8.01.07.25                 |                      | 8.01.07.25                 |
| Secure Path for Linux   | 3.0C              |                          | 3.0C SP2          | 3.0C SP1                   |                      | 3.0C SP2                   |

### 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. May 2008, v1.0

5) 3rd Party adapters require HP drivers and firmware.

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

**7) Supported with CA ARCserve 11.5 only**

# HP StorageWorks EBS Compatibility Matrix

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

| DAS, DAF, and SAN Support   | HP Data Protector | CA ARCserve <sup>6</sup> | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|---|-------------------|--------------------------|---------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems<sup>1,2</sup></b>  |                   |                          |               |                            |                      |                            |
| Red Hat Enterprise Linux [AS/ES/WS] 3.0 (64-bit)                                | ✓                 |                          | ✓             |                            |                      | ✓                          |
| Red Hat Enterprise Linux [AS/ES/WS] 4.0 (64-bit)                                | ✓                 | ✓                        | ✓             |                            |                      | ✓                          |
| Red Hat Enterprise Linux [AS/ES/WS] 5.0 (64-bit)                                |                   |                          |               |                            |                      | ✓                          |
| SUSE SLES 9 (64-bit)  | ✓                 | ✓                        | ✓             |                            |                      | ✓                          |
| SUSE SLES 10 (64-bit)   | ✓                 |                          |               |                            |                      | ✓                          |
| <b>Servers</b>  |                   |                          |               |                            |                      |                            |
| HP Integrity Superdome and Mid-Range (rx7000-rx8000 Series, Integrity)          | ✓                 | ✓                        | ✓             |                            |                      | ✓                          |
| HP Integrity Entry-Level (rx1000-rx6000 Series, Integrity)                      | ✓                 | ✓                        | ✓             |                            |                      | ✓                          |
| <b>4Gb Fibre Channel Host Bus Adapters<sup>4</sup> (HP Branded / 3rd Party)</b> |                   |                          |               |                            |                      |                            |
| <b>A8002A / Emulex LPe11000 (4G, PCI-e)</b>                                     |                   |                          |               |                            |                      |                            |
| <b>A8003A / Emulex LPe11002 (4G, PCI-e)</b>                                     |                   |                          |               |                            |                      |                            |
| FW  |                   |                          |               |                            |                      | <b>2.72a2</b>              |
| Red Hat Enterprise Linux 4.0 driver   |                   |                          |               |                            |                      | <b>8.0.16.32</b>           |
| SUSE SLES 9 driver  |                   |                          |               |                            |                      | <b>8.0.16.32</b>           |
| AE311A / QLogic QLE2460 (4G, PCI-e)   |                   |                          |               |                            |                      |                            |
| AD300A / QLogic QLE2462 (4G, PCI-e)   |                   |                          |               |                            |                      |                            |
| EFI   |                   |                          |               |                            |                      | 1.09                       |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          |               |                            |                      | 8.01.07.25                 |
| SUSE SLES 10 driver   |                   |                          |               |                            |                      | 8.01.07.25                 |
| AD167A / Emulex LP1150 (4G, PCI-X 2.0)  |                   |                          |               |                            |                      |                            |
| AD168A / Emulex LP11002 (4G, PCI-X 2.0)   |                   |                          |               |                            |                      |                            |
| FW  | <b>2.72a2</b>     | <b>2.72a2</b>            | <b>2.72a2</b> |                            |                      | <b>2.72a2</b>              |
| Red Hat Enterprise Linux 4.0 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27     |                            |                      | 8.0.16.32                  |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27     |                            |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |                          |               |                            |                      | 8.1.6.7                    |
| AB429A / QLogic QLA2460 (4G, PCI-X 2.0)   |                   |                          |               |                            |                      |                            |
| AB379A/AB379B / QLogic QLA2462 (4G, PCI-X 2.0)                                  |                   |                          |               |                            |                      |                            |
| EFI   | 1.09              | 1.09                     | 1.09          |                            |                      | 1.09                       |
| Red Hat Enterprise Linux 4.0 driver   | 8.01.07.25        | 8.01.07.25               | 8.01.07.25    |                            |                      | 8.01.07.25                 |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          |               |                            |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | 8.01.07.25        | 8.01.07.25               | 8.01.07.25    |                            |                      | 8.01.07.25                 |
| SUSE SLES 10 driver   | 8.01.07.25        |                          |               |                            |                      | 8.01.07.25                 |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>4</sup> (HP Branded / 3rd Party)</b> |                   |                          |               |                            |                      |                            |
| <b>A7538A / Qlogic QLA2340 (2G, PCI-X)</b>                                      |                   |                          |               |                            |                      |                            |
| <b>A6826A / Qlogic QLA2342 (2G, PCI-X)</b>                                      |                   |                          |               |                            |                      |                            |
| BIOS  | 1.49              | 1.49                     | 1.49          |                            |                      | 1.49                       |
| Red Hat Enterprise Linux 3.0 driver   | 7.07.05           |                          | 7.07.05       |                            |                      | 7.07.05                    |
| Red Hat Enterprise Linux 4.0 driver   | 8.01.07.25        | 8.01.07.25               | 8.01.07.25    |                            |                      | 8.01.07.25                 |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          |               |                            |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | 8.01.07.25        | 8.01.07.25               | 8.01.07.25    |                            |                      | 8.01.07.25                 |
| SUSE SLES 10 driver   | 8.01.07.25        |                          |               |                            |                      | 8.01.07.25                 |
| <b>Disk Array Multipath Support<sup>4</sup></b>                                 |                   |                          |               |                            |                      |                            |
| Emulex Multipulse (2.6 kernels only)  | 2.1.9             | 2.1.9                    | 2.1.9         |                            |                      | 2.2.20                     |
| QLogic Native Multi-Path for Linux (2.4 kernel)                                 | 7.07.05           | 7.07.05                  | 7.07.05       |                            |                      | 7.07.05                    |
| QLogic Native Multi-Path for Linux (2.6 kernel)                                 | 8.01.07.25        | 8.01.07.25               | 8.01.07.25    |                            |                      | 8.01.07.25                 |
| Secure Path for Linux   | 3.0C              |                          | 3.0C          |                            |                      | 3.0C SP2                   |

### 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.
- 6) Supported with CA ARCserve 11.5 only

# HP StorageWorks EBS Compatibility Matrix

**LINUX (x64)** <sup>4,6</sup>

(page 1 of 2)

| DAS, DAF, and SAN Support   | HP Data Protector | CA ARCserve <sup>7</sup> | EMC NetWorker     | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|---|-------------------|--------------------------|-------------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems</b> <sup>1,2</sup>   |                   |                          |                   |                            |                      |                            |
| Red Hat Enterprise Linux [AS/ES/WS] 4.0 (x64)   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| Red Hat Enterprise Linux [AS/ES/WS] 5.0 (x64)   | ✓                 |                          | ✓                 | ✓                          |                      | ✓                          |
| SUSE SLES 9 (x64)   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| SUSE SLES 10 (x64)  | ✓                 |                          | ✓                 | ✓                          |                      | ✓                          |
| <b>Servers</b>  |                   |                          |                   |                            |                      |                            |
| HP ProLiant   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| HP ProLiant c-Class BladeSystem   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| HP ProLiant p-Class BladeSystem   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| HP NetServer  | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| Third Party X86   | ✓                 | ✓                        | ✓                 | ✓                          |                      | ✓                          |
| <b>8Gb Fibre Channel Host Bus Adapters</b> <sup>3,5</sup> (HP Branded / 3rd Party)    |                   |                          |                   |                            |                      |                            |
| QLogic QLE2560 (8G, PCI-e)  |                   |                          |                   |                            |                      |                            |
| BIOS  | 2.00              |                          | 2.00              | 2.00                       |                      | 2.00                       |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          | 8.02.03           | <b>8.02.03</b>             |                      | 8.02.03                    |
| SUSE SLES 10 driver   | 8.02.03           |                          | 8.02.03           | 8.02.03                    |                      | 8.02.03                    |
| <b>4Gb Fibre Channel Host Bus Adapters</b> <sup>3,5</sup> (HP Branded / 3rd Party)    |                   |                          |                   |                            |                      |                            |
| FC2142SR / Emulex LPe1150 (4G, PCI-e)<br>FC2242SR DC / Emulex LPe11002-M4 (4G, PCI-e) |                   |                          |                   |                            |                      |                            |
| FW  | 2.70a5            | 2.70a5                   | 2.70a5            | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 3.0 driver   | 7.3.6             | 7.3.6                    | 7.3.6             | 7.3.6                      |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| FC1142SR / QLogic QLE2460 (4G, PCI-e)<br>FC1242SR DC / QLE2462 (4G, PCI-e)            |                   |                          |                   |                            |                      |                            |
| BIOS  | 1.26              | 1.26                     | 1.26              | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 4.0 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| FC2143 / Emulex LP1150 (4G, PCI-X 2.0)<br>FC2243 / Emulex LP11002 (4G, PCI-X 2.0)     |                   |                          |                   |                            |                      |                            |
| FW  | 2.70a5            | 2.70a5                   | 2.70a5            | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 3.0 driver   | 7.3.6             | 7.3.6                    | 7.3.6             | 7.3.6                      |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver   |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver   | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| FC1143 / QLogic QLA2460 (4G, PCI-X 2.0)<br>FC1243 / QLogic QLA2462 (4G, PCI-X 2.0)    |                   |                          |                   |                            |                      |                            |
| BIOS  | 1.26              | 1.26                     | 1.26              | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 4.0 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver   | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |

**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.

**7) Supported with CA ARCserve 11.5 only**



# HP StorageWorks EBS Compatibility Matrix

**LINUX (x64)**<sup>4,5</sup>

(page 2 of 2)

| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve <sup>7</sup> | EMC NetWorker     | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|--------------------------|-------------------|----------------------------|----------------------|----------------------------|
| <b>4Gb HP c-Class BladeSystem Fibre Channel Host Bus Adapters<sup>3</sup></b>                                    |                   |                          |                   |                            |                      |                            |
| LPe1105 (4G, PCI-e) for HP c-Class BladeSystem   |                   |                          |                   |                            |                      |                            |
| FW   | 2.70a5            | 2.70a5                   | 2.70a5            | 2.70a5                     |                      | 2.70a5                     |
| Red Hat Enterprise Linux 4.0 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver  |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver  | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| QMH2462 (4G, PCI-e) for HP c-Class BladeSystem   |                   |                          |                   |                            |                      |                            |
| BIOS   | 1.26              | 1.26                     | 1.26              | 1.26                       |                      | 1.26                       |
| Red Hat Enterprise Linux 4.0 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>3,6</sup> (HP Branded / 3rd Party)</b>                                |                   |                          |                   |                            |                      |                            |
| FCA2214 / QLogic 2340 (2G, PCI-X)<br>FCA2214DC / QLogic 2342 (2G, PCI-X)   |                   |                          |                   |                            |                      |                            |
| BIOS   | 1.45              | 1.45                     | 1.45              | 1.45                       |                      | 1.45                       |
| Red Hat Enterprise Linux 4.0 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>2Gb HP p-Class BladeSystem Fibre Channel Host Bus Adapters<sup>3</sup></b>                                    |                   |                          |                   |                            |                      |                            |
| Emulex Mezzanine Card for p-Class Blades (2G, PCI-X)   |                   |                          |                   |                            |                      |                            |
| FW   | 1.91a5            | 1.91a5                   | 1.91a5            | 1.91a5                     |                      | 1.91a5                     |
| Red Hat Enterprise Linux 3.0 driver  | 7.3.6             | 7.3.6                    | 7.3.6             | 7.3.6                      |                      | 7.3.6                      |
| Red Hat Enterprise Linux 4.0 driver  | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| Red Hat Enterprise Linux 5.0 driver  |                   |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| SUSE SLES 9 driver   | 8.0.16.27         | 8.0.16.27                | 8.0.16.27         | 8.0.16.27                  |                      | 8.0.16.32                  |
| SUSE SLES 10 driver  | 8.1.6.7           |                          | 8.1.6.7           | <b>8.1.6.7</b>             |                      | 8.1.6.7                    |
| QLogic Balcony Card for p-Class Blades (2G, PCI-X)<br>QLogic Mezzanine Card for p-Class Blades G2/G3 (2G, PCI-X) |                   |                          |                   |                            |                      |                            |
| BIOS (BL25p)   | 1.48              | 1.48                     | 1.48              | 1.48                       |                      | 1.48                       |
| BIOS (BL20p, BL30p, and BL35p)   | 1.48              | 1.48                     | 1.48              | 1.48                       |                      | 1.48                       |
| Red Hat Enterprise Linux 4.0 driver  | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| Red Hat Enterprise Linux 5.0 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 9 driver   | <b>8.01.07.25</b> | 8.01.06                  | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| SUSE SLES 10 driver  | <b>8.01.07.25</b> |                          | <b>8.01.07.25</b> | <b>8.01.07.25</b>          |                      | <b>8.01.07.25</b>          |
| <b>Disk Array Multipath Support<sup>3</sup></b>  |                   |                          |                   |                            |                      |                            |
| Emulex Multipulse (2.6 kernels only)   | 2.1.9             | 2.1.9                    | 2.1.9             | 2.1.9                      |                      | 2.2.20                     |
| QLogic Native Multi-Path for Linux (2.6 kernel)  | 8.01.07.25        | 8.01.07.25               | 8.01.07.25        | 8.01.07.25                 |                      | 8.01.07.25                 |

**NOTES:**

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

**7) Supported with CA ARCserve 11.5 only**

**Solaris**

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| DAS, DAF, and SAN Support                              | HP Data Protector | CA ARCserve <sup>5</sup> | EMC NetWorker      | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|--------------------------|--------------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems<sup>1, 2</sup></b>                |                   |                          |                    |                            |                      |                            |
| Solaris 9  | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| Solaris 10 SPARC                                       | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| Solaris 10 x86/x64                                     |                   |                          |                    | ✓                          |                      | ✓                          |
| <b>Servers</b>   |                   |                          |                    |                            |                      |                            |
| Sun UltraSPARC   | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| Sun Sun Fire   | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| HP ProLiant  |                   |                          |                    | ✓                          |                      | ✓                          |
| <b>4Gb Fibre Channel Host Bus Adapters<sup>3</sup></b> |                   |                          |                    |                            |                      |                            |
| SG-XPCI1FC-EM4-Z (4G, PCI-X 2.0)                       |                   |                          |                    |                            |                      |                            |
| SG-XPCI2FC-EM4-Z (4G, PCI-X 2.0)                       |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      |                   |                          |                    | ✓                          |                      |                            |
| Emulex LP11000 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| Emulex LP11002 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      |                   |                          |                    | ✓                          |                      |                            |
| SG-XPCI1FC-QF4 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| SG-XPCI2FC-QF4 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| QLogic QLA2460 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| QLogic QLA2462 (4G, PCI-X 2.0)                         |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| <b>2Gb Fibre Channel Host Bus Adapters<sup>3</sup></b> |                   |                          |                    |                            |                      |                            |
| SG-XPCI1FC-EM2 (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| SG-XPCI2FC-EM2 (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| SG-XPCI1FC-QF2 (X6767A) (2G, PCI-X)                    |                   |                          |                    |                            |                      |                            |
| SG-XPCI2FC-QF2 (X6768A) (2G, PCI-X)                    |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| SG-XPCI1FC-QL2 (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| SG-XPCI2FC-QF2-Z (2G, PCI-X)                           |                   |                          |                    |                            |                      |                            |
| Sun Native Driver                                      | ✓                 | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| QLogic QLA2340 (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| QLogic QLA2342 (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| Fcode  |                   |                          | 2.00.09            | 2.00.09                    |                      |                            |
| QLogic Driver  |                   |                          | 4.20               | 4.20                       |                      |                            |
| Sun Native Driver                                      |                   |                          | ✓                  | ✓                          |                      |                            |
| FCA2684/Emulex LP10000 (2G, PCI-X)                     |                   |                          |                    |                            |                      |                            |
| FCA2684DC/Emulex LP10000DC (2G, PCI-X)                 |                   |                          |                    |                            |                      |                            |
| FW   | 1.91a1            | 1.91a1                   | 1.91a1             | 1.91a1                     |                      | 1.91a1                     |
| Emulex Driver  | 6.02h             | 6.02h                    | 6.02h <sup>4</sup> | 6.02h <sup>4</sup>         |                      | 6.02h                      |
| Sun Native Driver                                      |                   | ✓                        | ✓                  | ✓                          |                      | ✓                          |
| Emulex LP9002L (2G, PCI-X)                             |                   |                          |                    |                            |                      |                            |
| FW   |                   |                          | 3.92a2             |                            |                      |                            |
| Emulex Driver  |                   |                          | 6.01f              |                            |                      |                            |
| FCA2257P (2G, PCI-X)                                   |                   |                          |                    |                            |                      |                            |
| 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                       |

**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.  
May 2008, v1.0

4) Supported with Solaris 9 only.

**5) Supported with CA ARCserve 11.5 only**

## Solaris

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| DAS, DAF, and SAN Support                        | HP Data Protector | CA ARCserve | EMC NetWorker  | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|-------------|----------------|----------------------------|----------------------|----------------------------|
| <b>Disk Array Multipath Support <sup>1</sup></b> |                   |             |                |                            |                      |                            |
| Solaris MPxIO                                    |                   |             | ✓ <sup>4</sup> | ✓ <sup>4</sup>             |                      | ✓ <sup>3</sup>             |
| VERITAS DMP                                      |                   |             | ✓ <sup>5</sup> |                            |                      | ✓ <sup>5</sup>             |
| <b>High Availability <sup>2</sup></b>            |                   |             |                |                            |                      |                            |
| VERITAS Cluster Server                           |                   |             |                |                            |                      | ✓                          |

**NOTES:**

- 1) Refer to [EBS Design Guide](#) for configuration rules and guidelines.
- 2) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.
- 3) Supported with Solaris 9 only.
- 4) Supported with Solaris 9 and 10.
- 5) Supported with Solaris 10.

**Tru64 Unix**

| DAS, DAF, and SAN Support                        | HP Data Protector | CA ARCserve <sup>9</sup> | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|--------------------------|---------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems <sup>1, 2</sup></b>         |                   |                          |               |                            |                      |                            |
| Tru64 5.1A <sup>8</sup>                          | 5.1A pk6          | 5.1A pk6 <sup>7</sup>    | 5.1A pk6      |                            |                      | 5.1A pk6                   |
| Tru64 5.1B <sup>8</sup>                          | 5.1B-3            |                          | 5.1B-4        |                            |                      | 5.1B-4                     |
| <b>Servers</b>                                   |                   |                          |               |                            |                      |                            |
| HP AlphaServer                                   | ✓                 | ✓                        | ✓             |                            |                      | ✓                          |
| <b>Fibre Host Bus Adapters <sup>5</sup></b>      |                   |                          |               |                            |                      |                            |
| FCA2684 (2G, PCI-X)                              |                   |                          |               |                            |                      |                            |
| FCA2684 DC (2G, PCI-X)                           |                   |                          |               |                            |                      |                            |
| FW   | 1.91x6            |                          | 1.91x6        |                            |                      | 1.91x6                     |
| Tru64 Driver                                     | 2.17              |                          | 2.17          |                            |                      | 2.17                       |
| FCA2354 (2G, PCI-X)                              |                   |                          |               |                            |                      |                            |
| FW   | 3.93a0            | 3.93a0                   | 3.93a0        |                            |                      | 3.93a0                     |
| Tru64 Driver                                     | 2.17              | 2.14                     | 2.17          |                            |                      | 2.17                       |
| FCA2384 (2G, PCI-X)                              |                   |                          |               |                            |                      |                            |
| FW   | 1.91x6            |                          | 1.91x6        |                            |                      | 1.91x6                     |
| Tru64 Driver                                     | 2.17              |                          | 2.17          |                            |                      | 2.17                       |
| <b>Disk Array Multipath Support <sup>5</sup></b> |                   |                          |               |                            |                      |                            |
| Tru64 Multipath                                  |                   | Native                   | Native        |                            |                      | Native                     |
| <b>High Availability <sup>4</sup></b>            |                   |                          |               |                            |                      |                            |
| Tru64 (TruCluster)                               |                   |                          | ✓             |                            |                      | ✓                          |

**OpenVMS**

|   |        |  |  |  |  |  |
|---|--------|--|--|--|--|--|
| <b>Operating Systems <sup>1, 2</sup></b>    |        |  |  |  |  |  |
| OpenVMS 8.2 <sup>3, 6, 8</sup>              | ✓      |  |  |  |  |  |
| OpenVMS 8.2-1 <sup>3, 6, 8</sup>            | ✓      |  |  |  |  |  |
| OpenVMS 8.3 <sup>3, 6, 8</sup>              | ✓      |  |  |  |  |  |
| <b>Servers</b>                              |        |  |  |  |  |  |
| HP AlphaServer                              | ✓      |  |  |  |  |  |
| HP Integrity                                | ✓      |  |  |  |  |  |
| <b>Fibre Host Bus Adapters <sup>5</sup></b> |        |  |  |  |  |  |
| FCA2684 (2G, PCI-X)                         |        |  |  |  |  |  |
| FCA2684 DC (2G, PCI-X)                      |        |  |  |  |  |  |
| FW  | 1.91x6 |  |  |  |  |  |
| OVMS Driver                                 | Native |  |  |  |  |  |
| FCA2354 (2G, PCI-X)                         |        |  |  |  |  |  |
| FW  | 3.93a0 |  |  |  |  |  |
| OVMS Driver                                 | Native |  |  |  |  |  |
| FCA2384 (2G, PCI-X)                         |        |  |  |  |  |  |
| FW  | 1.91x6 |  |  |  |  |  |
| OVMS Driver                                 | Native |  |  |  |  |  |
| A6826A (2G, PCI-X)                          |        |  |  |  |  |  |
| EFI   | 1.47   |  |  |  |  |  |
| 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) OpenVMS supported in switched fabric configurations only.
- 4) Refer to the [EBS Design Guide](#) for details on failover configurations. For Operating Systems not listed, please refer to the ISV's web page for supported High Availability configurations.
- 5) Refer to [EBS Design Guide](#) for configuration rules and guidelines.

- 6) [Click here](#) for additional data protection applications and solution information for OpenVMS, which includes HP and 3rd Party Heterogeneous Backup Solutions, as well as OpenVMS-specific solutions including ABS (Archive Backup Systems) and SLS (Storage Library System)
- 7) Support is with BEB v10.5 only
- 8) Ultrium 230 (LTO) not supported
- 9) **Supported with CA ARCserve 11.5 only**

# HP StorageWorks EBS Compatibility Matrix

## AIX

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

### 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) Disk and tape require dedicated HBA's.

6) Supported with AIX 5.3 only.

**7) Supported with CA ARCserve 11.5 only**

## NetWare

| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve <sup>6</sup> | EMC NetWorker | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|--------------------------|---------------|----------------------------|----------------------|----------------------------|
| <b>Operating Systems <sup>1, 2</sup></b>                                   |                   |                          |               |                            |                      |                            |
| NetWare 6.5  | 6.5 sp5           | 6.5 sp2 <sup>3</sup>     |               |                            | 6.5 sp6              |                            |
| <b>Servers</b>   |                   |                          |               |                            |                      |                            |
| HP ProLiant <sup>5</sup>   | ✓                 | ✓                        |               |                            | ✓                    |                            |
| HP ProLiant p-Class Blade Server <sup>5</sup>                              | ✓                 | ✓                        |               |                            | ✓                    |                            |
| Third Party X86  | ✓                 | ✓                        |               |                            | ✓                    |                            |
| <b>Fibre Host Bus Adapters <sup>3, 5</sup></b>                             |                   |                          |               |                            |                      |                            |
| FCA2214 (FCA2210) / QLA2340 (2G, PCI-X)<br>FCA2214DC / QLA2342 (2G, PCI-X) |                   |                          |               |                            |                      |                            |
| FW   | 1.45              | 1.45                     |               |                            | 1.45                 |                            |
| NetWare Driver   | 6.90m             | 6.51b                    |               |                            | 6.90m                |                            |
| <b>Disk Array Multipath Support <sup>5</sup></b>                           |                   |                          |               |                            |                      |                            |
| MPIO   | ✓                 |                          |               |                            | ✓                    |                            |
| <b>High Availability <sup>4</sup></b>                                      |                   |                          |               |                            |                      |                            |
| 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) Supported with CA ARCserve 11.5 only**

**RAID Arrays**

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

**NOTES:**

- 1) Consult with your hp solutions provider for disk array SAN compatibility information
- 2) For compatibility information about the optional MSA SAN Switch, refer to the [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) Supported with VCS 3.X and 4.X.

**Infrastructure**

| SAN Support  | Supported Release  | Native Fibre Channel Drives |                            |                            | Virtual Library Systems   |                 |                 | Interface Controllers |              |           |               |               |           |                   |           |   |
|--|--------------------|-----------------------------|----------------------------|----------------------------|---------------------------|-----------------|-----------------|-----------------------|--------------|-----------|---------------|---------------|-----------|-------------------|-----------|---|
|  |                    | Ultrium 1840 FC Drive (4Gb) | Ultrium 960 FC Drive (4Gb) | Ultrium 960 FC Drive (2Gb) | VLS 12000/300 EVA Gateway | VLS 9000 Series | VLS 6000 Series | e2400-FC 4Gb          | e2400-FC 2Gb | e2400-160 | e1200-320 4Gb | NSR E1200-160 | NSR M2402 | NSR N1200-320 4Gb | NSR N1200 |   |
| <b>SAN Switches<sup>1</sup></b>  |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| <b>B-Series</b>  |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| SAN Director 4/256   | 6.0.0b             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| SAN Switch 4/64, 4/32B, 4/32, 4/16, 4/8  | 6.0.0b             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Brocade 4Gb SAN Switch for HP c-Class BladeSystem (4/12 and 4/24)                            | 6.0.0b             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Brocade 4Gb SAN Switch for HP p-Class BladeSystem  | 6.0.0b             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| SAN Director 2/128   | 5.3.1              | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Core Switch 2/64   | 5.0.5f             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| SAN Switch 2/32, 2/8V, 2/16V, 2/16N  | 5.3.1              | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| SAN Switch 2/16, 2/8, 2/8-EL, 2/16-EL  | 3.2.1c             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| FC Switch 16B, 8B  | 3.2.1c             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| MSA SAN Switch 2/8   | 3.2.1c             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| <b>C-Series</b>  |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| Cisco MDS 9513, 9509, 9506, 9222i, 9216i, 9216A, 9216, 9124, 9124e, 9140, <b>9134</b> , 9120 | 3.2(3)             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Cisco MDS 9020   | 2.1(3)             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| <b>M-Series</b>  |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| McData 4Gb SAN Switch for HP p-Class BladeSystem   | <b>6.4.0.13.00</b> | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| McData Spheron 4700, 4400  | <b>09.06.02</b>    | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Director Switch 2/140, 2/64  | <b>09.06.02</b>    | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Edge Switch 2/32, 2/24, 2/16, 2/12   | <b>09.06.02</b>    | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| <b>8Gb Simple SAN Connection</b>   |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| HP StorageWorks 8/20q Fibre Channel Switch <sup>6</sup>                                      | <b>6.9.0.15.00</b> | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| <b>Multi-Protocol Routers and Gateways <sup>1</sup></b>                                      |                    |                             |                            |                            |                           |                 |                 |                       |              |           |               |               |           |                   |           |   |
| StorageWorks 400 Multi-Protocol Router <sup>2,5</sup>  | 5.3.0d             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| StorageWorks Multi-Protocol Router Blade <sup>2,5</sup>                                      | 5.3.0d             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| Multi-Protocol Router <sup>2,3</sup>   | 7.4.1e             | ✓                           | ✓                          | ✓                          | ✓                         | ✓               | ✓               | ✓                     | ✓            | ✓         | ✓             | ✓             | ✓         | ✓                 | ✓         | ✓ |
| IP Storage Router 2122-2 <sup>4</sup>  | 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.
- 5) Tape pipelining not supported.
- 6) Support for this platform is restricted. Please reference the switches' [Quick Spec on hp.com](#) for supported operating systems and host bus adapters.



# HP StorageWorks EBS Compatibility Matrix

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

| DAS, DAF, and SAN Support  | HP Data Protector | CA ARCserve | EMC NetWorker  | IBM Tivoli Storage Manager | Symantec Backup Exec | Symantec Veritas NetBackup |
|--|-------------------|-------------|----------------|----------------------------|----------------------|----------------------------|
| <b>HP StorageWorks Enterprise File Services (EFS) Clustered Gateway is a file server gateway. Based on a truly symmetrical cluster file system</b>   |                   |             |                |                            |                      |                            |
| EFS Clustered Gateway (PolyServe) Windows  | ✓                 | ✓           | ✓ <sup>3</sup> | ✓                          | ✓                    | ✓                          |
| EFS Clustered Gateway (PolyServe) Linux  | ✓                 |             | ✓              | ✓                          | ✓                    | ✓                          |
| <b>HP All-in-One (AiO) Storage, single integrated solution providing shared storage for application servers (iSCSI Target), enhanced file serving (NAS), backup target services and data protection software</b> |                   |             |                |                            |                      |                            |
| AiO1200 <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓                          |
| AiO600 <sup>2</sup>  | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓                          |
| AiO400t <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓                          |
| AiO400r <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓                          |
| <b>HP ProLiant Storage Server is a powerful file and print solution that enables environments to centralized Network Attached Storage (NAS).</b>   |                   |             |                |                            |                      |                            |
| DL585G2 Storage Server   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| DL380 G5 Storage Server  | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| DL320s Storage Server <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| DL160 G5 Storage Server <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| ML350 G5 Storage Server  | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| ML350 G4 Storage Server  | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |
| ML110 G5 Storage Server <sup>2</sup>   | ✓                 | ✓           | ✓              | ✓                          | ✓                    | ✓ <sup>1</sup>             |

**NOTES:**

1) Requires NetBackup 5.0 MP2 or later.

2) Tape connectivity via direct-attach SCSI only.

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

## SAS Host Bus Adapters

### HP Branded ProLiant SAS Host Bus Adapters <sup>2, 3, 4</sup>

| Windows                |            |               |                    |                  |                |
|------------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (Part #)     | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| HP SC44Ge (416096-B21) | PCI-e      | 3Gb           | 4                  | SAS              | SFF-8470       |

| Linux                  |            |               |                    |                  |                |
|------------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (Part #)     | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| HP SC44Ge (416096-B21) | PCI-e      | 3Gb           | 4                  | SAS              | SFF-8470       |

### HP Branded Integrity SAS Host Bus Adapters, Integrity 64-bit <sup>2</sup>

| HP-UX                           |            |               |                    |                  |                |
|---------------------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (Part #)              | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| HP SC44Ge (AH303A) <sup>1</sup> | PCI-e      | 3Gb           | 4                  | SAS              | SFF-8470       |

### HP BladeSystem c-Class PCI Expansion Blade with SAS Host Bus Adapters <sup>5</sup>

| Windows                       |              |               |                    |                  |                 |
|-------------------------------|--------------|---------------|--------------------|------------------|-----------------|
| Product # (Part #)            | System Bus   | Data Transfer | Number of Channels | Signal Interface | Connector Type  |
| <b>HP SC44Ge (416096-B21)</b> | <b>PCI-e</b> | <b>3Gb</b>    | <b>4</b>           | <b>SAS</b>       | <b>SFF-8470</b> |

| Linux                         |              |               |                    |                  |                 |
|-------------------------------|--------------|---------------|--------------------|------------------|-----------------|
| Product # (Part #)            | System Bus   | Data Transfer | Number of Channels | Signal Interface | Connector Type  |
| <b>HP SC44Ge (416096-B21)</b> | <b>PCI-e</b> | <b>3Gb</b>    | <b>4</b>           | <b>SAS</b>       | <b>SFF-8470</b> |

#### NOTES:

- 1) HPUX 11.31 supported only with HWE0803 (Hardware Enablement Package) installed.
- 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.

**5) Tape automation device attached to SC44Ge (416096-B21) residing in a PCI Expansion Blade (448018-B21)**

## SCSI Host Bus Adapters

(page 1 of 2)

### HP Branded ProLiant, HP-9000, and HP Alpha SCSI Host Bus Adapters <sup>2, 3, 4</sup>

| Windows          |            |               |                    |                  |                |
|------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (-B21) | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| AH627A           | PCI-e      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| 412911           | PCI-e      | Ultra320      | 1                  | SCSI-LVD         | VHDCI          |
| 374654           | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | VHDCI          |
| 268351           | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| 284688           | PCI        | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 129803           | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 154457           | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | HD68           |

| Linux            |            |               |                    |                  |                |
|------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (-B21) | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| AH627A           | PCI-e      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| 412911           | PCI-e      | Ultra320      | 1                  | SCSI-LVD         | VHDCI          |
| 374654           | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | VHDCI          |
| 268351           | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| 284688           | PCI        | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 129803           | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 154457           | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | HD68           |

| Netware          |            |               |                    |                  |                |
|------------------|------------|---------------|--------------------|------------------|----------------|
| Product # (-B21) | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| 374654           | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | VHDCI          |
| 284688           | PCI        | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 129803           | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 154457           | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | HD68           |
|                  |            |               |                    |                  |                |
|                  |            |               |                    |                  |                |
|                  |            |               |                    |                  |                |

| HP-UX               |            |               |                    |                  |                |
|---------------------|------------|---------------|--------------------|------------------|----------------|
| Product #           | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| A7173A              | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| AB290A              | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| A6829A              | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| A6828A              | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
| A4999A <sup>1</sup> | PCI        | Ultra80       | 1                  | SCSI-LVD         | HD68           |

| Tru64       |            |               |                    |                  |                |
|-------------|------------|---------------|--------------------|------------------|----------------|
| Product #   | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| 3X-KZPEA-DB | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| 3X-KZPCA-AA | PCI-X      | Ultra80       | 1                  | SCSI-LVD         | 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.

## SCSI Host Bus Adapters

(page 2 of 2)

### HP Branded Integrity SCSI Host Bus Adapters, Integrity 64-bit <sup>1</sup>

| Windows   |            |               |                    |                  |                |
|-----------|------------|---------------|--------------------|------------------|----------------|
| Product # | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| A7173A    | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| A7060A    | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| A7059A    | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
|           |            |               |                    |                  |                |

| Linux     |            |               |                    |                  |                |
|-----------|------------|---------------|--------------------|------------------|----------------|
| Product # | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| A7173A    | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| A7060A    | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| A7059A    | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
|           |            |               |                    |                  |                |

| HP-UX     |            |               |                    |                  |                |
|-----------|------------|---------------|--------------------|------------------|----------------|
| Product # | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| A7173A    | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| AB290A    | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| A6829A    | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| A6828A    | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
|           |            |               |                    |                  |                |

### Third Party SCSI HBA and Integrated SCSI Controllers <sup>2,3,4</sup>

| Windows       |            |               |                    |                  |                |
|---------------|------------|---------------|--------------------|------------------|----------------|
| Product #     | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| Adaptec 29320 | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | HD68           |
| Adaptec 29160 | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
| Adaptec 39160 | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| LSI 22915     | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| ATTOTech UL4D | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| ATTOTech UL5D | PCI-e      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
|               |            |               |                    |                  |                |

| Linux         |            |               |                    |                  |                |
|---------------|------------|---------------|--------------------|------------------|----------------|
| Product #     | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| Adaptec 29320 | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | HD68           |
| Adaptec 29160 | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
| Adaptec 39160 | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
| ATTOTech UL4D | PCI-X      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
| ATTOTech UL5D | PCI-e      | Ultra320      | 2                  | SCSI-LVD         | VHDCI          |
|               |            |               |                    |                  |                |

| Netware       |            |               |                    |                  |                |
|---------------|------------|---------------|--------------------|------------------|----------------|
| Product #     | System Bus | Data Transfer | Number of Channels | Signal Interface | Connector Type |
| Adaptec 29320 | PCI-X      | Ultra320      | 1                  | SCSI-LVD         | HD68           |
| Adaptec 29160 | PCI-X      | Ultra160      | 1                  | SCSI-LVD         | VHDCI          |
| Adaptec 39160 | PCI-X      | Ultra160      | 2                  | SCSI-LVD         | VHDCI          |
|               |            |               |                    |                  |                |
|               |            |               |                    |                  |                |
|               |            |               |                    |                  |                |

#### NOTES:

- 1) Refer to the Server QuickSpecs to determine which SCSI HBAs are supported
- 2) For Solaris and AIX configurations, HP 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.
- 3) Third Party SCSI HBA support is for HP servers only
- 4) See vendor website for additional details:  
<http://www.adaptec.com/>  
<http://www.attotech.com/hp.html>  
<http://www.lsilogic.com/>

## Storage Software

|                               | HP<br>Data Protector | CA ARCserve    | EMC NetWorker  | IBM<br>Tivoli Storage Manager | Symantec<br>Backup Exec | Symantec Veritas<br>NetBackup |
|-------------------------------|----------------------|----------------|----------------|-------------------------------|-------------------------|-------------------------------|
| Command View TL               | 2.3.01               | 2.3.01         | 2.3.01         | 2.3.01                        | 2.3.01                  | 2.3.01                        |
| Continuous Access             | ✓                    | ✓              | ✓              | ✓                             | ✓                       | ✓                             |
| Insight Manager Agents        | 7.70                 | 7.70           | 7.70           | 7.70                          | 7.70                    | 7.70                          |
| PolyServe                     | ✓                    | ✓ <sup>2</sup> | ✓ <sup>1</sup> | ✓                             | ✓                       | ✓                             |
| Smart Start                   | 7.90                 | 7.90           | 7.90           | 7.90                          | 7.90                    | 7.90                          |
| Storage Essentials            | 6.0                  | 6.0            | 6.0            | 6.0                           | 6.0                     | 6.0                           |
| Systems Insight Manager (SIM) | <b>5.2</b>           | <b>5.2</b>     | <b>5.2</b>     | <b>5.2</b>                    | <b>5.2</b>              | <b>5.2</b>                    |

### NOTES:

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

# HP StorageWorks EBS Compatibility Matrix

## Legacy Device Support

| Device Name  | Last EBS Compatibility Matrix Where Device Was Listed <sup>1</sup> |
|--|--|
| 1/8 Autoloaders                                    | December 2007  |
| ESL9000 series libraries                           | September 2007   |
| ESL E-Series SDLT 160/320                          | July 2007  |
| ESL 9000 Series SDLT 160/320                       | July 2007  |
| 1/8 Tape Autoloader (SDLT 160/320)                 | July 2007  |
| 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   |
| 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   |
| Modular Data Router (MDR)                          | February 2004  |
| TL895  | December 2002  |
| TL891DLX   | December 2002  |
| ESL9326D   | April 2002   |
| TL891D   | April 2002   |
| DLT 35/70  | April 2002   |

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

## Advisories

| Date                               | Problem Description   | Number                    |
|------------------------------------|---|---------------------------|
| <b>Tape Libraries Advisories</b>   |   |                           |
| 03/13/08                           | HP StorageWorks ESL E-Series libraries will post an error message when upgrading from 6.20 to 6.22 firmware   | <a href="#">c01387942</a> |
| 03/12/08                           | HP StorageWorks D2D Backup Systems using HP Data Protector 6.0 (A.06.00) cannot import media containing spanned backup sessions   | <a href="#">c01214249</a> |
| 03/07/08                           | HP StorageWorks ESL E-Series libraries have issues migrating from 1.x Interface Manager code to Interface Manager 2.20, 2.30, and possibly future firmware                          | <a href="#">c01377519</a> |
| 02/27/08                           | HP StorageWorks Virtual Library Systems (VLS) will not initialize after upgrading the system BIOS on HP ProLiant DL360 G5 node server using the 7.91 Firmware Maintenance CD        | <a href="#">c01369226</a> |
| 01/02/08                           | HP StorageWorks Virtual Library System (VLS) is not functional after entering or modifying the network configuration settings   | <a href="#">c01292136</a> |
| 11/30/07                           | Error F5 during an HP L&T drive or media assessment test on an HP StorageWorks 1/8 G2 Tape Autoloader or HP StorageWorks MSL2024, 4048, or 8096 Tape Libraries.                     | <a href="#">c01273166</a> |
| 11/12/07                           | HP Secure Key Manager (SKM) - Data Protection Application behavior when SKM is unavailable  | <a href="#">c01269477</a> |
| 10/1/07                            | (Revised) HP StorageWorks Ultrium 230/460/960 Tape Drives - tape unload instructions for tapes stuck in Ultrium 230/460/960 tape drives   | <a href="#">c00795203</a> |
| 10/05/07                           | Virtual Library Systems - VLS models 6200, 6600, and the 12000 EVA Gateway running software version 2.0.0 are not currently supported with ARCserve 11.1 or 11.5 running on Linux.  | <a href="#">c01181673</a> |
| 09/01/07                           | NetApp Filers - Unable to Access Tape Devices Mapped Behind Port 1 of Interface Controllers in ESL E-Series and EML E-Series Enterprise Tape Libraries                              | <a href="#">c01154679</a> |
| 05/31/07                           | HP StorageWorks MSL5000 and MSL6000 Libraries - potential for CRC or Parity Errors when SCSI Termination is on the Controller   | <a href="#">c00659626</a> |
| <b>Application Advisories</b>      |   |                           |
| 04/04/08                           | <b>Cleaning cartridge does not return to original storage slot after performing an autoloader tape drive clean operation when using Data Protector Express 3.5 SP2 Media wizard</b> | <a href="#">c01413689</a> |
| 04/04/08                           | <b>Move media operation from the mail slot to any storage slot in an Autoloader or Changer library will hang when using Data Protector Express 3.5 SP2</b>                          | <a href="#">c01413680</a> |
| 12/05/07                           | EMC NetWorker not recognizing the HP PolyServe clustered file system (PSFS)   | <a href="#">c01290486</a> |
| 08/23/06                           | HP Data Protector Express Version 3.1 may generate a tape mount request (alert message number 1401) when using two drive versions of HP StorageWorks MSL 2024.                      | <a href="#">c00743086</a> |
| 07/06/06                           | EMC NetWorker backup jobs failing with 10 second timeout may occur while running on either Redhat Linux v2.1 or v3.0 and any tape library or tape drive                             | <a href="#">c00707628</a> |
| <b>Operating System Advisories</b> |   |                           |
| 11/21/07                           | Solaris – ESL E-Series and EML E-Series Library Reboots Causing Device Access Issues on Servers Running Sun Native HBA Drivers  | <a href="#">c00965686</a> |
| 05/31/07                           | Microsoft Windows Server 2003 - Interoperability Issues with Persistent Binding of Symbolic Tape Names in an Enterprise Backup Solution (EBS) Configuration                         | <a href="#">c01064312</a> |
| 03/26/07                           | Emulex StorPort Driver - Targets Cannot be Persistently Bound when Running with the Emulex StorPort Driver  | <a href="#">c00871551</a> |
| 03/07/07                           | Microsoft Windows SAN - How to Disable Tape Drive Polling on Microsoft Windows SAN-Attached Servers Running hpplto.sys  | <a href="#">c00718488</a> |
| 03/01/07                           | HP-UX 11.11 - Running Get All Elements Details on HP-UX 11.11 Hosts Can Cause Tape Backups to Abort   | <a href="#">c00869191</a> |
| <b>Miscellaneous Advisories</b>    |   |                           |

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 affect 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.