



HP StorageWorks Enterprise Backup Solution Hardware/Software Compatibility Matrix

This matrix includes tape automation compatibility details for Direct Attach SCSI (DAS), Direct Attach Fibre (DAF or point-to-point fibre), and Storage Area Network (SAN) connection options. This matrix does not imply device availability.

Products that are scheduled for removal from the EBS Matrix next month will be highlighted in yellow. Automation products will then be moved to the Legacy Support Details page.

For more technical information about EBS and supported 3rd party arrays, go to the Enterprise Backup Solution Design Guide and ISV implementation guides located at <http://www.hp.com/go/ebs>

For information about tape drive compatibility and support, go to <http://www.hp.com/go/connect>

START HERE

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**STORAGE HARDWARE / SOFTWARE
COMPATIBILITY MATRIX**

Enterprise Backup Solution Compatibility Matrix Index

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Sample Page Layout

Black bar shows title of current page

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White indicates current page

Click on product to go to product web page on hp.com

Click on check mark to go to firmware/drivers page for this product

STORAGE HARDWARE / SOFTWARE COMPATIBILITY MATRIX											
Libraries - Application Support											
DAS, DAF, and SAN Support	HP Data Protector	Attempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Lagato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Enterprise Libraries											
ESL E-Series 712e (Ultrium 460)	✓ ¹⁰			✓		✓	✓			✓	✓
ESL E-Series 630e (SDLT320)	✓ ¹⁰			✓		✓	✓			✓	✓
ESL 9595 (Ultrium 460)	✓			✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9595 (Ultrium 230)	✓			✓	✓	✓	✓ ⁵	✓	✓	✓	✓
ESL 9595 S2	✓			✓	✓	✓	✓	✓	✓	✓	✓
ESL 9595 5L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9326 5L	✓			✓	✓	✓	✓	✓	✓	✓	✓
ESL 9326 DLX ⁶	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9322 (Ultrium 460)	✓			✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9322 (Ultrium 230)	✓			✓	✓	✓	✓ ⁵	✓	✓	✓	✓
ESL 9322 S2	✓			✓	✓	✓	✓	✓	✓	✓	✓
ESL 9198 5L	✓	✓	✓	✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9198 DLX ⁶	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL Multi-Unit Scalability ^{3,4}	✓			✓	✓	✓	✓	✓	✓ ⁸	✓	✓
ESL Mixed Media Support	✓					✓				✓ ⁹	✓
Mid-Range Libraries											
MSL 6060 (Ultrium 460)	✓			✓	✓	✓	✓	✓	✓	✓	✓
MSL 5060 (Ultrium 230)	✓			✓	✓	✓	✓ ⁵	✓	✓	✓	✓
MSL 5052 S2	✓			✓	✓	✓	✓	✓	✓	✓	✓
MSL 5052 5L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 6030 (Ultrium 460)	✓			✓	✓	✓	✓	✓	✓	✓	✓
MSL 5030 (Ultrium 230)	✓			✓	✓	✓	✓ ⁵	✓	✓	✓	✓
MSL 5026 S2	✓			✓	✓	✓	✓	✓	✓	✓	✓
MSL 5026 5L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5026 DLX ⁶	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL Multi-Unit Scalability ^{3,4}	✓			✓	✓	✓	✓	✓		✓ ⁹	✓
MSL Mixed Media Support	✓					✓				✓ ⁹	✓
SSL 2020 TL ⁶	✓	✓	✓	✓ ⁷		✓	✓ ¹	✓	✓ ¹	✓ ⁷	✓ ¹

NOTES:

- 1) Win NT/2000 and Solaris support in homogeneous SAN environments only
- 2) Support is with CA BrightStor ARCserve for Windows NT/2000 and CA BrightStor ARCserve for NetWare in a homogeneous environment only
- 3) ESL multiunit scalability is with a horizontal pass-through mechanism, and the MSL multiunit scalability is with a vertical pass-through mechanism
- 4) Contact your ISV for scalability support
- 5) Ultrium 230 drives are not supported on Win 2003
- 6) Not supported with IA-64 operating systems
- 7) Windows support only
- 8) Support is with IBM 6228 HBA only
- 9) Homogeneous Windows only
- 10) Windows, HP-UX, and NetWare support only

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Notes pertaining to unique configurations

Matrix version

Current page number and buttons to navigate to previous and next pages

Libraries - Application Support

DAS, DAF, and SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Enterprise Libraries											
ESL E-Series 712e (Ultrium 460)	✓ ⁹	✓	✓	✓ ²		✓	✓			✓ ⁶	✓
ESL E-Series 630e (SDLT 320)	✓ ⁹	✓	✓	✓ ²		✓	✓			✓ ⁶	✓
ESL 9595 (Ultrium 460)	✓	✓	✓	✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9595 (Ultrium 230)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9595 S2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9595 SL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9326 SL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9326 DX ⁵	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9322 (Ultrium 460)	✓	✓	✓	✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9322 (Ultrium 230)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9322 S2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL 9198 SL	✓	✓	✓	✓ ²	✓	✓	✓	✓	✓	✓	✓
ESL 9198 DLX ⁵	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESL Multi-Unit Scalability ^{3,4}	✓	✓	✓		✓	✓	✓	✓	✓ ⁷		✓
ESL Mixed Media Support	✓	✓		✓		✓				✓ ⁸	✓
Mid-Range Libraries											
MSL 6060 (Ultrium 460)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5060 (Ultrium 230)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5052 S2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5052 SL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 6030 (Ultrium 460)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5030 (Ultrium 230)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5026 S2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5026 SL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL 5026 DLX ⁵	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSL Multi-Unit Scalability ^{3,4}	✓	✓	✓	✓		✓	✓			✓	✓
MSL Mixed Media Support	✓	✓		✓		✓				✓ ⁸	✓
SSL 2020 TL ⁵	✓	✓	✓	✓ ⁶		✓	✓ ¹	✓	✓ ¹	✓ ⁶	✓ ¹

NOTES:

- 1) Win NT/2000 and Solaris support in homogeneous SAN environments only
- 2) Support is with CA BrightStor ARCserve for Windows NT/2000 and CA BrightStor ARCserve for NetWare in a homogeneous environment only
- 3) ESL multi-unit scalability is with a horizontal pass-through mechanism, and the MSL multi-unit scalability is with a vertical pass-through mechanism

- 4) Contact your ISV for scalability support
- 5) Not supported with IA-64 operating systems
- 6) Windows support only
- 7) Support is with IBM 6228 HBA only
- 8) Homogeneous Windows only

- 9) Not supported on OpenVMS and Linux RHEL 3.0

Libraries - Controller Support

DAF and SAN Support¹	E2400-160 FC Interface Controller	NSR E1200-160	NSR E2400	NSR E1200	NSR M2402	NSR N1200
Enterprise Libraries						
ESL E-Series 712e (Ultrium 460)	✓					
ESL E-Series 630e (SDLT320)	✓					
ESL 9595 (Ultrium 460)	✓				✓	
ESL 9595 (Ultrium 230)	✓		✓		✓	✓
ESL 9595 S2	✓		✓		✓	✓
ESL 9595 SL	✓		✓		✓	✓
ESL 9326 SL	✓		✓		✓	✓
ESL 9326 DX					✓	✓
ESL 9322 (Ultrium 460)	✓				✓	
ESL 9322 (Ultrium 230)	✓		✓		✓	✓
ESL 9322 S2	✓		✓		✓	✓
ESL 9198 SL	✓		✓		✓	✓
ESL 9198 DLX	✓		✓		✓	✓
ESL Multi-Unit Scalability	✓		✓		✓	✓
Interface Manager	✓					
Mid-Range Libraries						
MSL 6060 (Ultrium 460)		✓			✓	
MSL 5060 (Ultrium 230)		✓		✓	✓	✓
MSL 5052 S2		✓		✓	✓	✓
MSL 5052 SL		✓		✓	✓	✓
MSL 6030 (Ultrium 460)		✓			✓	
MSL 5030 (Ultrium 230)		✓		✓	✓	✓
MSL 5026 S2		✓		✓	✓	✓
MSL 5026 SL		✓		✓	✓	✓
MSL 5026 DLX		✓		✓	✓	✓
MSL Multi-Unit Scalability		✓		✓	✓	✓
SSL 2020 TL					✓	✓

NOTE:

1) For ISV compatibility information with the routers, refer to the second [Infrastructure](#) page within this document or [click here](#).

AutoLoaders

DAS Support	Operating System Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup	Native	
AutoLoaders¹														
SSL1016 Ultrium 460 Tape Autoloader	HP-UX 11.0	✓						✓		✓		✓	✓	
	HP-UX 11.11	✓						✓		✓		✓	✓	
	HP-UX 11.23	✓						✓					✓	
	Windows NT 4.0	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
	Windows 2000 Server/AS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Windows Server 2003 (32-bit)	✓			✓			✓		✓	✓	✓	✓	
	Windows Server 2003 (64-bit)	✓						✓		✓				
	Tru64 5.1							✓					✓	
	Tru64 5.1A							✓					✓	
	Tru64 5.1B							✓					✓	
	Red Hat Advanced Server 2.1 (32-bit)								✓				✓	✓
	Red Hat Advanced Server 2.1 (64-bit)	✓												
	Red Hat Enterprise Linux 3.0 (32-bit)													✓
	Red Hat Enterprise Linux 3.0 (64-bit)													
	United Linux 1.0/SuSE SLES 8 (32-bit)								✓					✓
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓												
	NetWare 5.1	✓				✓						✓		
	NetWare 6.0	✓				✓						✓		
	NetWare 6.5					✓								
	Solaris 7	✓							✓		✓		✓	
Solaris 8	✓							✓		✓		✓		
Solaris 9	✓							✓				✓		
AIX 4.3.3 (32-bit)								✓		✓		✓		
AIX 5.1L (32-bit)										✓				
AIX 5.2 (32-bit)														
SSL1016 SDLT160/320 Tape Autoloader	HP-UX 11.0	✓						✓				✓	✓	
	HP-UX 11.11	✓						✓				✓	✓	
	HP-UX 11.23	✓											✓	
	Windows NT 4.0	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	
	Windows 2000 Server/AS	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	Windows Server 2003 (32-bit)	✓			✓			✓			✓	✓	✓	
	Windows Server 2003 (64-bit)	✓						✓						
	Tru64 5.1							✓					✓	
	Tru64 5.1A	✓						✓					✓	
	Tru64 5.1B	✓						✓					✓	
	Red Hat Advanced Server 2.1 (32-bit)	✓						✓					✓	✓
	Red Hat Advanced Server 2.1 (64-bit)	✓												
	Red Hat Enterprise Linux 3.0 (32-bit)													✓
	Red Hat Enterprise Linux 3.0 (64-bit)													
	United Linux 1.0/SuSE SLES 8 (32-bit)	✓												✓
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓												
	NetWare 5.1	✓				✓						✓		
	NetWare 6.0	✓				✓						✓		
	NetWare 6.5					✓								
	Solaris 7	✓							✓				✓	
Solaris 8	✓							✓				✓		
Solaris 9	✓							✓				✓		
AIX 4.3.3 (32-bit)	✓							✓				✓		
AIX 5.1L (32-bit)								✓						
AIX 5.2 (32-bit)														

NOTE: 1) AutoLoaders are only supported in Direct Attach SCSI configurations

Autoloaders

DAS Support	Operating System Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup	Native	
AutoLoaders¹														
1/8 Ultrium 460 Tape Autoloader	HP-UX 11.0	✓						✓		✓		✓	✓	
	HP-UX 11.11	✓						✓		✓		✓	✓	
	HP-UX 11.23	✓						✓					✓	
	Windows NT 4.0	✓	✓	✓	✓		✓			✓	✓	✓	✓	
	Windows 2000 Server/AS	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	
	Windows Server 2003 (32-bit)	✓			✓			✓		✓	✓	✓	✓	
	Windows Server 2003 (64-bit)	✓						✓					✓	
	Tru64 5.1	✓						✓					✓	
	Tru64 5.1A	✓						✓					✓	
	Tru64 5.1B	✓						✓					✓	
	Red Hat Advanced Server 2.1 (32-bit)	✓						✓				✓	✓	
	Red Hat Advanced Server 2.1 (64-bit)	✓						✓					✓	
	Red Hat Enterprise Linux 3.0 (32-bit)													✓
	Red Hat Enterprise Linux 3.0 (64-bit)													✓
	United Linux 1.0/SuSE SLES 8 (32-bit)	✓												✓
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓												✓
	NetWare 5.1	✓				✓						✓		
	NetWare 6.0	✓				✓						✓		
	NetWare 6.5					✓								
	Solaris 7	✓							✓				✓	
Solaris 8	✓							✓				✓		
Solaris 9	✓							✓				✓		
AIX 4.3.3 (32-bit)	✓							✓				✓		
AIX 5.1L (32-bit)	✓							✓				✓		
AIX 5.2 (32-bit)	✓							✓				✓		
1/8 Ultrium 230 Tape Autoloader	HP-UX 11.0	✓								✓		✓	✓	
	HP-UX 11.11	✓								✓		✓	✓	
	HP-UX 11.23	✓											✓	
	Windows NT 4.0	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
	Windows 2000 Server/AS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Windows Server 2003 (32-bit)	✓						✓		✓			✓	
	Windows Server 2003 (64-bit)	✓								✓			✓	
	Tru64 5.1													
	Tru64 5.1A													
	Tru64 5.1B													
	Red Hat Advanced Server 2.1 (32-bit)							✓				✓	✓	
	Red Hat Advanced Server 2.1 (64-bit)	✓						✓						
	Red Hat Enterprise Linux 3.0 (32-bit)												✓	
	Red Hat Enterprise Linux 3.0 (64-bit)												✓	
	United Linux 1.0/SuSE SLES 8 (32-bit)							✓					✓	
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓						✓						
	NetWare 5.1	✓				✓					✓			
	NetWare 6.0	✓				✓					✓			
	NetWare 6.5					✓								
	Solaris 7								✓		✓		✓	
Solaris 8								✓		✓		✓		
Solaris 9								✓				✓		
AIX 4.3.3 (32-bit)										✓				
AIX 5.1L (32-bit)										✓				
AIX 5.2 (32-bit)														

NOTE: 1) Autoloaders are only supported in Direct Attach SCSI configurations

Autoloaders

DAS Support	Operating System Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup	Native	
AutoLoaders¹														
1/8 SDLT 160/320 Tape Autoloader	HP-UX 11.0	✓						✓				✓	✓	
	HP-UX 11.11	✓						✓				✓	✓	
	HP-UX 11.23	✓						✓					✓	
	Windows NT 4.0										✓	✓		
	Windows 2000 Server/AS	✓				✓		✓			✓	✓	✓	
	Windows Server 2003 (32-bit)	✓				✓		✓			✓	✓	✓	
	Windows Server 2003 (64-bit)	✓				✓		✓					✓	
	Tru64 5.1							✓						
	Tru64 5.1A							✓						
	Tru64 5.1B							✓				✓		
	Red Hat Advanced Server 2.1 (32-bit)					✓						✓	✓	
	Red Hat Advanced Server 2.1 (64-bit)								✓					
	Red Hat Enterprise Linux 3.0 (32-bit)													✓
	Red Hat Enterprise Linux 3.0 (64-bit)													
	United Linux 1.0/SuSE SLES 8 (32-bit)					✓								✓
	United Linux 1.0/SuSE SLES 8 (64-bit)													
	NetWare 5.1	✓				✓						✓		
	NetWare 6.0	✓				✓						✓		
	NetWare 6.5	✓				✓						✓		
	Solaris 7								✓				✓	
Solaris 8								✓				✓		
Solaris 9								✓				✓		
AIX 4.3.3 (32-bit)								✓						
AIX 5.1L (32-bit)								✓				✓		
AIX 5.2 (32-bit)								✓				✓		

NOTE: 1) Autoloaders are only supported in Direct Attach SCSI configurations

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Autoloaders

DAS Support	Operating System Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup	Native	
AutoLoaders¹														
1/8 DLT vs80 Tape Autoloader	HP-UX 11.0	✓											✓	
	HP-UX 11.11	✓											✓	
	HP-UX 11.23	✓												
	Windows NT 4.0	✓	✓	✓	✓	✓	✓		✓		✓			
	Windows 2000 Server/AS	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	
	Windows Server 2003 (32-bit)	✓			✓			✓					✓	
	Windows Server 2003 (64-bit)	✓												
	Tru64 5.1													
	Tru64 5.1A													
	Tru64 5.1B													
	Red Hat Advanced Server 2.1 (32-bit)								✓					✓
	Red Hat Advanced Server 2.1 (64-bit)	✓							✓					
	Red Hat Enterprise Linux 3.0 (32-bit)													✓
	Red Hat Enterprise Linux 3.0 (64-bit)													✓
	United Linux 1.0/SuSE SLES 8 (32-bit)								✓					✓
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓							✓					
	NetWare 5.1	✓				✓						✓		
	NetWare 6.0	✓				✓						✓		
	NetWare 6.5													
	Solaris 7								✓					
Solaris 8								✓						
Solaris 9								✓						
AIX 4.3.3 (32-bit)														
AIX 5.1L (32-bit)														
AIX 5.2 (32-bit)														
SSL1016 DLT1 Tape Autoloader	HP-UX 11.0							✓		✓				
	HP-UX 11.11							✓		✓				
	HP-UX 11.23	✓												
	Windows NT 4.0	✓	✓	✓	✓	✓	✓		✓	✓	✓ ²	✓		
	Windows 2000 Server/AS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ ²	✓		
	Windows Server 2003 (32-bit)									✓				
	Windows Server 2003 (64-bit)	✓								✓				
	Tru64 5.1							✓						
	Tru64 5.1A							✓						
	Tru64 5.1B							✓						
	Red Hat Advanced Server 2.1 (32-bit)							✓						
	Red Hat Advanced Server 2.1 (64-bit)	✓						✓						
	Red Hat Enterprise Linux 3.0 (32-bit)													
	Red Hat Enterprise Linux 3.0 (64-bit)													
	United Linux 1.0/SuSE SLES 8 (32-bit)							✓						
	United Linux 1.0/SuSE SLES 8 (64-bit)	✓						✓						
	NetWare 5.1					✓								
	NetWare 6.0					✓								
	NetWare 6.5													
	Solaris 7								✓		✓			
Solaris 8								✓		✓				
Solaris 9								✓						
AIX 4.3.3 (32-bit)								✓		✓				
AIX 5.1L (32-bit)										✓				
AIX 5.2 (32-bit)														

NOTES: 1) Autoloaders are only supported in Direct Attach SCSI configurations

2) Supported with BE 9.0 and later only

Operating Systems Overview

DAS, DAF, and SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Operating Systems ⁶											
HP-UX 11.0	✓	✓	✓		✓	✓	✓	✓	✓		✓
HP-UX 11.11	✓	✓	✓		✓	✓	✓	✓	✓		✓
HP-UX 11.23	✓	✓ ²	✓ ²				✓				
Windows NT 4.0		✓	✓	✓ ⁵	✓	✓		✓	✓	✓	✓
Windows 2000 Server/AS	✓	✓	✓	✓ ⁵	✓	✓	✓	✓	✓	✓	✓
Windows Server 2003 (32-bit)	✓	✓	✓	✓ ⁵	✓	✓	✓	✓	✓	✓	✓
Windows Server 2003 (64-bit)	✓	✓				✓	✓	✓	✓		
Tru64 5.1 ³							✓				✓
Tru64 5.1A ³	✓	✓	✓		✓	✓	✓	✓			✓
Tru64 5.1B ³	✓	✓	✓			✓	✓	✓			✓
OpenVMS 7.3-1 ^{3, 7, 8}	✓										
Red Hat Advanced Server 2.1 (32-bit)	✓	✓	✓			✓	✓	✓			✓
Red Hat Advanced Server 2.1 (64-bit)	✓	✓	✓				✓				
Red Hat Enterprise Linux 3.0 (32-bit)	✓	✓	✓				✓				
Red Hat Enterprise Linux 3.0 (64-bit)	✓	✓	✓				✓				
United Linux 1.0/SuSE SLES 8 (32-bit)	✓	✓	✓				✓				
United Linux 1.0/SuSE SLES 8 (64-bit)	✓	✓									
NetWare 5.1	✓		✓	✓ ⁵				✓		✓	
NetWare 6.0	✓			✓ ⁵		✓		✓		✓	
NetWare 6.5	✓			✓ ⁵		✓				✓	
Solaris 7	✓					✓	✓		✓		✓
Solaris 8	✓	✓	✓		✓	✓	✓	✓	✓		✓
Solaris 9	✓	✓	✓		✓	✓	✓	✓	✓		✓
AIX 4.3.3	✓ ⁴		✓			✓	✓		✓		✓
AIX 5.1L		✓				✓	✓ ¹	✓	✓		✓
AIX 5.2		✓	✓			✓	✓		✓		✓

NOTES:

1) DLT8000 products not supported

2) HP Integrity Superdome & Mid-Range (rx7000-rx8000, IA-64) not supported

3) Ultrium 230 (LTO) not supported

4) Robot control is not supported

5) Supports ESL9000 libraries in a homogeneous environment only

6) Other Operating Systems not listed above may be supported within EBS by the respective ISVs as LAN clients

7) Supported only with the original version 7.3-1 mk driver (SYS\$MKDRIVER.EXE)

8) Refer to <http://h71000.www7.hp.com/openvms/Storage.html> 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)

Operating Systems Version Details

DAS, DAF, and SAN Support	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Operating Systems												
HP-UX 11.0	(HWE 1100) March 2004	(HWE 1100) March 2004	(HWE 1100) March 2004	(HWE 1100) March 2004		11.00 w/SP56 (HWE 11.0) PHKL_25769	(HWE 1100) September 2003	(HWE 1100) March 2004	(HWE 1100) September 2003	(HWE 1100) March 2004		(HWE 1100) March 2004
HP-UX 11.11	(HWE 11.11) June 2004	(HWE 11.11) June 2004	(HWE 11.11) December 2003	(HWE 11.11) December 2003		11.11 w/SP56 (HWE 11.11) PHKL_22857	(HWE 11.11) September 2003	(HWE 11.11) June 2004	(HWE 11.11) September 2003	(HWE 11.11) June 2004		(HWE 11.11) June 2004
HP-UX 11.23	(HWE 11.23) March 2004	(HWE 11.23) March 2004	(HWE 11.23) March 2004	(HWE 11.23) March 2004				(HWE 11.23) March 2004				
Windows NT 4.0	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a	sp6a
Windows 2000 Server/AS	sp4	sp4	sp4	sp4	sp4	sp4	sp4	sp4	sp4	sp4	sp4	sp4
Windows Server 2003 (32-bit)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows Server 2003 (64-bit)	✓	✓	✓				✓		✓	✓		
Tru64 5.1	5.1 pk6							5.1 pk6				5.1 pk6
Tru64 5.1A	5.1A pk6	5.1A pk6	5.1A pk6	5.1A pk6		5.1A pk6	5.1A pk6	5.1A pk6	5.1A pk6			5.1A pk6
Tru64 5.1B	5.1B pk3	5.1B pk3	5.1B pk3	5.1B pk3			5.1B pk3	5.1B pk3	5.1B pk3			5.1B pk3
OpenVMS 7.3-1 ¹	7.3-1	7.3-1										
Red Hat Advanced Server 2.1 (32-bit)	✓ ²	✓ ²	✓ ²	✓ ²			✓ ²	✓ ²	✓ ²			✓ ²
Red Hat Advanced Server 2.1 (64-bit)	✓ ²	✓ ²	✓ ²	✓ ²				✓ ²				
Red Hat Enterprise Linux 3.0 (32-bit)	✓ ²	✓ ²	✓ ²	✓ ²				✓ ²				
Red Hat Enterprise Linux 3.0 (64-bit)	✓ ²	✓ ²	✓ ²	✓ ²				✓ ²				
United Linux 1.0/SuSE SLES 8 (32-bit)	✓ ²	✓ ²	✓ ²	✓ ²				✓ ²				
United Linux 1.0/SuSE SLES 8 (64-bit)	✓ ²	✓ ²	✓ ²									
NetWare 5.1	5.1 sp7	5.1 sp7		5.1 sp5	5.1 sp7				5.1 sp6		5.1 sp7	
NetWare 6.0	6.0 sp4	6.0 sp4			6.0 sp4		6.0 sp4		6.0 sp3		6.0 sp4	
NetWare 6.5	6.5 sp1	6.5 sp1			6.5 sp1		6.5 sp1				6.5 sp1	
Solaris 7	7	7					7	7		7		7
Solaris 8	8	8	8	8		8	8	8	8	8		8
Solaris 9	9	9	9	9		9	9	9	9	9		9
AIX 4.3.3	4.3.3	4.3.3 ³		4.3.3			4.3.3	4.3.3		4.3.3		4.3.3
AIX 5.1L	5.1L		5.1L				5.1L	5.1L	5.1L	5.1L		5.1L
AIX 5.2	5.2		5.2	5.2			5.2	5.2		5.2		5.2

NOTES:

- 1) Supported only with the original version 7.3-1 mk driver (SYSS\$MKDRIVER.EXE)
- 2) EBS is not dependent on specific kernel errata levels. For required/supported kernel erratas, refer to your online storage array's support documentation.
- 3) Robot control is not supported

Operating Systems - High Availability Support

DAS, DAF, and SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
High Availability³											
HP-UX (Service Guard) ¹	✓ ²										✓ ²
Windows (MSCS)	✓	✓	✓			✓	✓	✓	✓	✓ ⁴	✓
Tru64 (TruCluster)		✓					✓	✓			✓
NetWare 5.1 (NWCS)										✓	
NetWare 6.0 (NWCS)						✓		✓		✓	
NetWare 6.5 (NWCS)						✓					
Solaris											✓

NOTES:

- 1) Supported on XP and VA raid array products only
- 2) ATS is not supported
- 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) Support includes NAS9000 and NAS4000 platforms.

RAID Arrays

SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
RAID Arrays											
XP 1024/128 ¹	✓	✓	✓	✓	✓	HP-UX, NT, WIN 2000, WIN 2003, Tru64, and Solaris only	✓	HP-UX, NT/WIN 2000, WIN 2003, and Solaris only	HP-UX and NT/WIN2K only	✓	✓
XP 48/512 ¹	✓	✓	✓	✓	✓	HP-UX, NT, WIN 2000, WIN 2003, Tru64, and Solaris only	✓	HP-UX, NT/WIN 2000, WIN 2003, and Solaris only	HP-UX and NT/WIN2K only	✓	✓
Zero Downtime with XP	✓										
Instant Recovery with XP	✓										
Enterprise Virtual Array EVA 5000 ^{1,3}	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enterprise Virtual Array EVA 3000 ^{1,3}	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VA 7410/7110 ¹	✓			✓			✓			✓	✓
VA 7400/7100 ¹	✓			✓			✓			✓	✓
EMA 16000 ¹	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EMA 12000/8000 ¹	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MSA1000 ^{2, 3}	✓	✓	✓	✓	✓	✓	✓	NT/WIN2K and NetWare only	✓	✓	✓

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) NetWare supported with FCA2210 HBA only

Infrastructure - SAN Switch Support

SAN Support	E2400-160 FC Interface Controller	NSR E1200-160	NSR E2400	NSR E1200	NSR M2402	NSR N1200
Interconnects¹						
Director Switch 2/140	✓	✓	✓	✓	✓	✓
Director Switch 2/64	✓	✓	✓	✓	✓	✓
Edge Switch 2/32	✓	✓	✓	✓	✓	✓
Edge Switch 2/24	✓	✓	✓	✓	✓	✓
Edge Switch 2/16	✓	✓	✓	✓	✓	✓
SAN Director 2/128	✓	✓	✓	✓	✓	✓
Core Switch 2/64	✓	✓	✓	✓	✓	✓
SAN Switch 2/32	✓	✓	✓	✓	✓	✓
SAN Switch 2/16N	✓	✓	✓	✓	✓	✓
SAN Switch 2/16V	✓	✓	✓	✓	✓	✓
SAN Switch 2/16	✓	✓	✓	✓	✓	✓
SAN Switch 2/8V	✓	✓	✓	✓	✓	✓
SAN Switch 2/8	✓	✓	✓	✓	✓	✓
SAN Switch 2/16-EL	✓	✓	✓	✓	✓	✓
SAN Switch 2/8-EL	✓	✓	✓	✓	✓	✓
SAN Switch 16	✓	✓	✓	✓	✓	✓
SAN Switch 8	✓	✓	✓	✓	✓	✓
SAN Switch 16EL	✓	✓	✓	✓	✓	✓
SAN Switch 8EL	✓	✓	✓	✓	✓	✓
FC Switch 16B	✓	✓	✓	✓	✓	✓
FC Switch 8B	✓	✓	✓	✓	✓	✓
MSA SAN Switch 2/8	✓	✓	✓	✓	✓	✓
Cisco MDS 9506	✓	✓	✓	✓	✓	✓
Cisco MDS 9509	✓	✓	✓	✓	✓	✓
Cisco MDS 9216	✓	✓	✓	✓	✓	✓
Cisco MDS 9120	✓	✓	✓	✓	✓	✓
Cisco MDS 9140	✓	✓	✓	✓	✓	✓

NOTES:

1) Refer to [Heterogeneous Open SAN Design Reference Guide](#) for switch configuration rules and guidelines located at:
<http://h18000.www1.hp.com/products/storageworks/san/documentation.html> or consult with your hp solutions provider for assistance

Infrastructure - Interface Controllers and Serverless Support

DAF and SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Channel Interface Controller											
Interface Manager	✓	✓	✓	✓		✓	✓		✓	✓	✓
E2400-160 FC Interface Controller	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NSR E1200-160	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NSR E2400	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NSR E1200	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NSR M2402	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NSR N1200	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Serverless Backup⁶ (SAN Support Only)											
E2400-160 FC Interface Controller	✓ ⁷										
NSR E2400				✓ ³	✓ ³					✓ ⁴	✓ ⁵
NSR E1200				✓ ³	✓ ³					✓ ⁴	✓ ⁵
NSR M2402	✓ ⁷			✓ ³	✓ ³					✓ ⁴	✓ ⁵
NSR N1200				✓ ³	✓ ³					✓ ⁴	✓ ⁵

NOTES:

- 1) MDR does not support Ultrium 230, Ultrium 460, and SDLT 2 libraries
- 2) MDR does not support Direct Attach Fibre (DAF) configurations
- 3) Windows 2000 Serverless option with HSG only
- 4) Windows 2000 ServerFree opt with HSG, HSV, MSA1000 only
- 5) Solaris 8 VERITAS NetBackup 4.5 nbu_snap w/ HSG only (master router configuration not supported)
- 6) Serverless Backup functionality is not available with the e1200-160 interface controller.
- 7) Supported with XP128/1024 and version 5.1.08 of NSR firmware.

Servers and Workstations

DAS, DAF, and SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Servers											
HP Integrity Superdome & Mid-Range (rx7000-rx8000, IA-64) ³	✓						✓				
HP 9000 Superdome & Mid-Range (rp7000-rp8000, PA-RISC) ³	✓	✓	✓				✓				✓
HP 9000 Entry-Level (rp1000-rp6000, PA-RISC)	✓	✓	✓		✓	✓	✓	✓	✓		✓
HP Integrity Entry-Level (rx1000-rx6000, IA-64)	✓ ²	✓	✓			✓	✓	✓	✓		
HP A, L, N, and V Class (pa-risc)	✓	✓	✓		✓	✓	✓	✓	✓		✓
HP K, R, and D Class (pa-risc) ¹	✓	✓	✓								
HP ProLiant	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HP ProLiant Blade Server	✓	✓		✓		✓	✓	✓	✓	✓	✓
HP NetServer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HP AlphaServer	✓	✓	✓		✓	✓	✓	✓			✓
IBM RS/6000	✓	✓	✓			✓	✓	✓	✓		✓
Sun UltraSPARC	✓	✓	✓		✓	✓	✓	✓	✓		✓
Sun Sun Fire	✓	✓	✓		✓	✓	✓	✓	✓		✓
Third Party X86	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Workstations											
HP xz series (IA) ²	✓										
HP B-Class (pa-risc)	✓										✓
HP C-Class (pa-risc)	✓										✓
HP J-Class (pa-risc)	✓										✓
NAS											
NAS 9000s	✓	✓	✓	✓		✓	✓			✓	
NAS 4000s	✓	✓	✓	✓		✓	✓			✓	
NAS 8000	✓							✓			
NAS e7000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NAS 2000s	✓	✓	✓	✓						✓	
NAS 1200s	✓	✓	✓	✓						✓	
NAS B3000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NAS B2000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

NOTES:

- 1) Ultrium 230 support only
- 2) Data Protector 5.0 support in 32-bit emulation mode
- 3) Only Enterprise and Mid-Range Libraries supported.

Fibre Host Bus Adapters

SAN and DAF Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters¹											
HP-UX (IA-64)											
A9782 (2G Combo Card)	✓	✓	✓				✓				
A9784 (2G Combo Card)	✓	✓	✓				✓				
A6795A (2G)	✓						✓				
A6826A (2G)	✓	✓	✓				✓				
HP-UX (PA-RISC)											
A9782 (2G Combo Card)	✓						✓ ²		✓		✓
A9784 (2G Combo Card)	✓						✓ ²		✓		✓
A6826A (2G)	✓						✓ ²		✓		✓
A6795A (2G)	✓	✓	✓		✓	✓	✓	✓	✓		✓
A6684A (1G)	✓						✓				✓
A6685A (1G)	✓						✓				✓
A5158A (1G)	✓	✓	✓		✓	✓	✓	✓	✓		✓
OpenVMS											
FCA2384 (2G - PCI-X)	✓										
Tru64											
FCA2354 (2G - PCI)	✓	✓	✓		✓	✓	✓	✓			✓
FCA2384 (2G - PCI-X)	✓						✓				✓
KGPSA -CA (1G - PCI)	✓	✓	✓		✓	✓	✓	✓			✓
Solaris											
FCA2257P (2G - PCI)	✓				✓	✓	✓	✓	✓		✓
FCA2257C (1G - cPCI)	✓				✓	✓	✓	✓	✓		✓
FCA2257S (1G - SBus)	✓				✓	✓	✓	✓	✓		✓
SWSA4-SC 64-bit (1G - SBus)	✓	✓	✓		✓	✓	✓	✓	✓		✓
SWSA4-PC 32-bit (1G - PCI)							✓		✓		✓
SG-XPCI2FC-QF2 (X6768A) (2G - PCI-X)	✓ ^{3,7}	✓	✓			✓ ³					✓ ³
SG-XPCI1FC-QF2 (X6767A) (2G - PCI-X)	✓ ^{3,7}					✓ ³					✓ ³
FCX-6562 (2G - PCI)											✓ ⁴
FCX2-6562 (2G - PCI)											✓ ⁴
JNI FCE6460 (2G - PCI)	✓	✓	✓		✓	✓	✓	✓	✓		✓
JNI FCC6460 (2G - cPCI)	✓	✓	✓		✓	✓	✓	✓	✓		✓
JNI FCE6410 (1G - PCI)	✓						✓				✓
AIX											
Cambex PC2000 (2G - PCI)		✓	✓			✓	✓				✓
IBM 6228 (2G)	✓	✓				✓	✓	✓	✓		✓
IBM 6239 (2G) ⁵							✓		✓		
Cambex PC1000 (1G)	✓		✓				✓		✓		✓

NOTES:

1) Refer to [Heterogeneous Open SAN Design Reference Guide](#) for configuration rules and guidelines located at: <http://h18000.www1.hp.com/products/storageworks/san/documentation.html> or consult with your hp solutions provider for assistance

2) DAF support only

3) Solaris 9 support only

4) Supported with Solaris 9 and NetBackup 5.0 only.

5) Supported with AIX 5.2 only.

6) Supported on D and K Servers with HP-UX 11.0 only.

Not supported on ESL E-Series Enterprise Libraries.

7) Not supported for robot control.

Fibre Host Bus Adapters

SAN and DAF Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters ¹											
Windows - HP Branded											
A7387A (2G)	2000/2003			2000/2003			2000/2003		2000/2003	2000/2003	2000/2003
A7388A (2G)	2000/2003			2000/2003			2000/2003		2000/2003	2000/2003	2000/2003
FCA2355 (2G)	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003
FCA2408 (2G)	2000/2003	2000/2003		2000/2003		2000/2003	2000/2003	2000/2003	2000/2003	2000/2003	2000/2003
ISP2312 (2G - BL20pG2 Blade Server)	2000/2003	2000/2003		2000/2003		2000/2003	2000/2003	2000/2003	2000/2003	2000/2003	2000/2003
FCA2101 (2G)	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003
FCA2404 (2G)	2000/2003	2000/2003	2000/2003	2000/2003		2000/2003	2000/2003		2000/2003	2000/2003	2000/2003
FCA2404DC (2G)	2000/2003	2000/2003	2000/2003	2000/2003		2000/2003	2000/2003		2000/2003	2000/2003	2000/2003
FCA2214 / 2214DC (2G)	2000/2003	2000/2003		2000/2003		2000/2003	2000/2003	2000/2003	2000/2003	2000/2003	2000/2003
64-bit/33MHz PCI to FC (1G) KGPSA-CB	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003	NT/2000/2003
Windows - HP Branded (IA64)											
A7298A (2G)	✓	✓				✓	✓		✓		
AB232A (2G)	✓	✓				✓	✓		✓		
Windows - 3rd Party											
Emulex LP982 (Full-Port Driver) ⁶	✓										✓
LINUX											
FCA2214 / 2214DC (2G)	✓	✓	✓			✓	✓	✓			✓
ISP2312 (2G - BL20pG2 Blade Server)	✓	✓				✓	✓	✓			✓
QLA2200 (1G)	✓						✓	✓			
LINUX (IA64)											
A6826A	✓	✓	✓				✓				
NetWare											
FCA2210 (2G) ³	✓ ⁷			✓		✓		✓		✓	
64-bit / 66 MHz PCI to FC HBA (1G) ^{2, 4, 5}	✓ ⁷		✓	✓				✓		✓	
32-bit / 33 MHz HBA (1G) ^{2, 4, 5}	✓ ⁷			✓				✓		✓	

NOTES:

1) Refer to [Heterogeneous Open SAN Design Reference Guide](#) for configuration rules and guidelines located at: <http://h18000.www1.hp.com/products/storageworks/san/documentation.html> or consult with your hp solutions provider for assistance

2) COMPAQ HBAs

3) Supports Enterprise Virtual Array and MSA1000. Supports HSG80 arrays with NetWare 5.1 and 6.0 only.

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

5) Not supported with CA ARCserve 9.0 for NetWare

6) Supported for tape connectivity only. Support is limited to full-port driver 2.21a0 and firmware 1.01a2

7) Support is limited to single path configurations only

SCSI Host Bus Adapters

HP Branded SCSI Host Bus Adapters³

Windows	HP-UX	LINUX	Tru64	NetWare
268351-B21 Ultra320, LVD, Dual Channel, VHDCI	A6829A Ultra160, LVD, Dual Channel, VHDCI	268351-B21 Ultra320, LVD, Dual Channel, VHDCI	3X-KZPCA-AA Ultra80, LVD, Dual Channel, HD68	268351-B21 Ultra320, LVD, Dual Channel, VHDCI
284688-B21 Ultra160, LVD, Dual Channel, VHDCI	A6828A Ultra160, LVD, Single Channel, VHDCI	284688-B21 Ultra160, LVD, Dual Channel, VHDCI		284688-B21 Ultra160, LVD, Dual Channel, VHDCI
C7474A Ultra160, LVD, Single Channel, VHDCI	A5149A Ultra80, LVD, Single Channel, VHDCI	A7059A ² Ultra160, LVD, Single Channel, VHDCI		129803-B21 Ultra160, LVD, Dual Channel, VHDCI
154457-B21 Ultra160, LVD, Single Channel, HD68	A5150A Ultra80, LVD, Dual Channel, VHDCI	A7060A ² Ultra160, LVD, Dual Channel, VHDCI		154457-B21 Ultra160, LVD, Single Channel, HD68
A7059A ² Ultra160, LVD, Single Channel, VHDCI	A4974A ¹ Ultra, SE, Single Channel, HD68	C7474A Ultra160, LVD, Single Channel, VHDCI		C7474A Ultra160, LVD, Single Channel, VHDCI
A7060A ² Ultra160, LVD, Dual Channel, VHDCI	A4999A ¹ Ultra80, LVD, Single Channel, VHDCI	154457-B21 Ultra160, LVD, Single Channel, HD68		348757-B21 Ultra80, LVD, Dual Channel, VHDCI
129803-B21 Ultra160, LVD, Dual Channel, VHDCI	A5838A Ultra80, LVD, Dual Channel, VHDCI	129803-B21 Ultra160, LVD, Dual Channel, VHDCI		
348757-B21 Ultra80, LVD, Dual Channel, VHDCI	A2679A Ultra80, LVD, Single Channel, HD68			

NOTES:

- 1) Supported on HP-UX Workstations only
- 2) Windows IA-64 support only
- 3) Refer to the Server QuickSpecs to determine which SCSI HBAs are supported

SCSI Host Bus Adapters

Third Party SCSI HBA and Integrated SCSI Controllers ^{2,3}		
Windows	Linux	NetWare
Adaptec 29320 Ultra320, LVD, Single Channel	Adaptec 29320 Ultra320, LVD, Single Channel	Adaptec 29320 Ultra320, LVD, Single Channel
Adaptec 29160 Ultra160, LVD, Single Channel	Adaptec 29160 Ultra160, LVD, Single Channel	Adaptec 29160 Ultra160, LVD, Single Channel
Adaptec 39160 Ultra160, LVD, Dual Channel	Adaptec 39160 Ultra160, LVD, Dual Channel	Adaptec 39160 Ultra160, LVD, Dual Channel
Symbios/LSI 22915 Ultra160, LVD, Dual Channel		
Symbios/LSI 22903 Ultra160, LVD, Dual Channel		
Symbios/LSI 8951 Ultra80, LVD, Single Channel		
Integrated Smart Array 5i/5i Plus ¹ Ultra160, LVD, Single Channel		
ProLiant Integrated SCSI Ultra160, LVD, Single and Dual Channel		

NOTES:

- 1) Supported only with Enterprise and Mid-Range Libraries, SSL1016 Ultrium 460, 1/8 Ultrium 460, 1/8 SDLT320, and 1/8 Ultrium 230 tape autoloaders
- 2) For Solaris and AIX configurations, EBS supports all SCSI HBA's supported by the server hardware manufacturer.
Refer to the server manufacturer's web site for supported HBA/server platform/operating system combinations.
- 3) Third Party SCSI HBA support is for HP servers only

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Storage Software

	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
OpenView											
Storage Virtual Replicator				✓			✓		✓	✓	✓
OV-SAM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Zero Downtime with XP	✓										
Instant Recovery with XP	✓										
StorageWorks											
Command View for ESL	✓	✓	✓	✓		✓	✓		✓	✓	✓
Continuous Access				✓			✓		✓	✓	NT/WIN2K only
Business Copy EVA	✓	✓		✓		✓	✓		✓	NT/WIN2K only	NT/WIN2K only
Business Copy XP	✓										
Tools and Utilities											
Smart Start	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Insight Manager	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Disk Array Multipath

SAN Support	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Disk Array Multipath¹											
AutoPath for HP-UX ¹	✓						✓				✓
Secure Path for HP-UX ¹	✓	✓	✓		✓	✓	✓	✓	✓		✓
Secure Path for Windows ¹	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AutoPath for Windows 2000 ¹	✓			✓			✓		✓	✓	✓
AutoPath for Windows 2003 ¹				✓			✓			✓	
Secure Path for Linux	✓	✓	✓								
QLogic Native Multi-Path for Linux	✓										
Tru64 Multipath ²		✓	✓		✓	✓	✓	✓			✓
Secure Path for NetWare ^{1,3}				✓		✓		✓		✓	
Secure Path for Solaris ¹	✓	✓	✓		✓	✓	✓	✓	✓		✓
Secure Path for AIX ¹		✓	✓			✓	✓	✓	✓		✓

NOTES:

- 1) Refer to [Heterogeneous Open SAN Design Reference Guide](#) for configuration rules and guidelines located at: <http://h18000.www1.hp.com/products/storageworks/san/documentation.html> or consult with your hp solutions provider for assistance
- 2) Multipath to tape supported
- 3) MSA1000 and EVA require FCA-2210 HBA with a minimum Secure Path version of 3.0c. HSG80 arrays with FCA-2210 HBA require a minimum Secure Path version of 3.0c SP2.

Firmware & Drivers - Enterprise Libraries

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Enterprise Libraries												
ESL E-Series 712e												
Robot FW	1.01	1.01	1.01	1.01	1.01		1.01	1.01			1.01	1.01
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W		F43W	F43W			F43W	F43W
ESL E-Series 630e												
Robot FW	1.01	1.01	1.01	1.01	1.01		1.01	1.01			1.01	1.01
Drive FW SDLT 160/320	v75	v75	v75	v75	v75		v75	v75			v75	v75
ESL 9595 (Ultrium 460)												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W	F3CW	F43W	F43W	F43W	F43W	F43W	F43W
ESL 9595 (Ultrium 230)												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW Ultrium 230	E38W	E38W	E38W	E38W	E38W	E33W	E38W	E38W	E38W	E38W	E38W	E38W
ESL 9595 S2												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW SDLT 160/320	v75	v75	v75	v75	v75	v52	v75	v75	v75	v75	v75	v75
ESL 9595 SL												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW SDLT 110/220	v75	v75	v75	v75	v75	v51	v75	v75	v75	v75	v75	v75
ESL 9326 SL												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW SDLT 110/220	v75	v75	v75	v75	v75	v51	v75	v75	v75	v75	v75	v75
ESL 9326 DX												
Robot FW	3.48	3.48	3.20p5	3.20p5	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW 40/80	v88	v88	V80	V80	v88	V80	v86	v88	v80	v88	v88	v88
ESL 9322 (Ultrium 460)												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W	F3CW	F43W	F43W	F43W	F43W	F43W	F43W
ESL 9322 (Ultrium 230)												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW Ultrium 230	E38W	E38W	E38W	E38W	E38W	E33W	E38W	E38W	E38W	E38W	E38W	E38W
ESL 9322 S2												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW SDLT 160/320	v75	v75	v75	v75	v75	v52	v75	v75	v75	v75	v75	v75
ESL 9198 SL												
Robot FW	3.48	3.48	3.48	3.48	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW SDLT 110/220	v75	v75	v75	v75	v75	v51	v75	v75	v75	v75	v75	v75
ESL 9198 DLX												
Robot FW	3.48	3.48	3.20p5	3.20p5	3.48	3.40	3.48	3.48	3.48	3.48	3.48	3.48
Drive FW 40/80	v88	v88	V80	V80	v88	v80	V80	v88	v80	v88	v88	v88

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Firmware & Drivers - Mid-Range Libraries

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Mid-Range Libraries												
MSL 6060 (Ultrium 460)												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W	F3CW	F43W	F43W	F43W	F43W	F43W	F43W
MSL 5060 L1												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW Ultrium 230	E38W	E38W	E38W	E38W	E38W	E33W	E38W	E38W	E38W	E38W	E38W	E38W
MSL 5052 S2												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW SDLT 160/320	v75	v75	v75	v75	v75	v52	v75	v75	v75	v75	v75	v75
MSL 5052 SL												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW SDLT 110/220	v75	v75	v75	v75	v75	v51	v75	v75	v75	v75	v75	v75
MSL 6030 (Ultrium 460)												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W	F3CW	F43W	F43W	F43W	F43W	F43W	F43W
MSL 5030 L1												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW Ultrium 230	E38W	E38W	E38W	E38W	E38W	E33W	E38W	E38W	E38W	E38W	E38W	E38W
MSL 5026 S2												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW SDLT 160/320	v75	v75	v75	v75	v75	v52	v75	v75	v75	v75	v75	v75
MSL 5026 SL												
Robot FW	4.23	4.23	4.23	4.23	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
SDLT 110/220 FW	v75	v75	v75	v75	v75	v51	v75	v75	v75	v75	v75	v75
MSL 5026 DLX												
Robot FW	4.23	4.23	3.11	3.11	4.23	4.14	4.23	4.23	4.14	4.23	4.23	4.23
Drive FW 40/80	v88	v88	V80	V80	v88	v80	V80	v88	v80	v88	v88	v88
SSL 2020 TL												
Robot FW	4.16	4.16	4.15	4.15	4.16		4.16	4.16	4.16	4.16	4.16	4.16
Drive FW AIT50	1.35	1.35	1.30	1.30	1.35		1.30	1.35	1.27	1.35	1.35	1.35

Firmware & Drivers - Autoloaders, Tools and Multipath

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Autoloaders												
SSL1016 Ultrium 460												
Robot FW	v20	v20	v20	v10	v20	v10	v10	v20	v10	v20	v20	v20
Drive FW Ultrium 460	F43W	F43W	F43W	F43W	F43W	F43W	F43W	F43W	F43W	F43W	F43W	F43W
1/8 Ultrium 460												
Robot FW	N12r	N12r	N12r	N12r	N12r		N12r	N12r			N12r	N12r
Drive FW Ultrium 460	F78V	F78V	F78V	F78V	F78V		F78V	F78V			F78V	F78V
1/8 Ultrium 230												
Robot FW	H43r	H43r	H43r	H43r	H43r	H33r	H43r	H43r	H33r	H43r	H43r	H43r
Drive FW Ultrium 230	E33P	E330P	E33P	E33P	E33P	E00P	E33P	E33P	E00P	E33P	E33P	E33P
1/8 DLT vs80												
Robot FW	0110	0110	0110	0110	0110	0110	0110	0110	0110		0110	
Drive FW vs80	v56	v56	v56	v56	v56	v56	v56	v56	v56		v56	
1/8 Ultrium SDLT160/320												
Robot FW	L12r	L12r	L12r		L12r			L12r			L12r	L12r
Drive FW SDLT 160/320	v75	v75	v75		v75			v75			v75	v75
SSL1016 SDLT160/320												
Robot FW	v40	v40		v35	v40	v31	v31	v40	v31		v40	v40
Drive FW SDLT 160/320	v75	v75		v75	v75	v52	v75	v75	v75		v75	v75
SSL1016 DLT1												
Robot FW	v40	v40	v31	v31	v40	v13	v13	v40	v31	v40	v40	v40
Drive FW DLT 1	v63	v63	v53	v53	v63	v46	v46	v63	v53	v63	v63	v63
Tools and Utilities												
Smart Start	7.0	7.0	7.0	7.0	7.0	6.40	7.0	7.0	6.40	7.0	7.0	7.0
Insight Manager	7.0	7.0	7.0	7.0	7.0	6.40	7.0	7.0	6.40	7.0	7.0	7.0
Disk Array Multipath Support												
AutoPath for HP-UX	2.01.02	2.01.02						2.01.02				2.01.02
Secure Path for HP-UX	3.0C	3.0C	3.0C	3.0C		3.0B	3.0C	3.0C	3.0B	3.0C		3.0C
Secure Path for Windows	4.0C	4.0C	4.0C	4.0C	4.0C	4.0B	4.0C	4.0C	4.0B	4.0C	4.0C	4.0C
AutoPath for Windows 2000	2.01	2.01			2.01			2.01		2.01	2.01	2.01
AutoPath for Windows 2003	1.00				1.00			1.00			1.00	
Secure Path for Linux	3.0A	3.0A	3.0A	3.0A								
QLogic Native Multi-Path for Linux	7.00.03	7.00.03										
Tru64 Multipath	Native		Native	Native		Native	Native	Native	Native			Native
Secure Path for NetWare	3.0C SP2				3.0C SP2		3.0C SP2		3.0C SP1		3.0C SP2	
Secure Path for Solaris	3.0C SP1	3.0C SP1	3.0C SP1	3.0C		3.0B SP1	3.0C	3.0C SP1	3.0B SP1	3.0C SP1		3.0C SP1
Secure Path for AIX	2.0D SP2		2.0D SP2	2.0D SP2			2.0D SP2	2.0D SP2	2.0D SP2	2.0D SP2		2.0D SP2

Firmware & Drivers - Controllers

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Channel Interface Controllers												
Interface Manager	i120	i120	i120	i120	i120		i120	i120		i120	i120	i120
NSR M2402	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b
NSR N1200	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b
NSR E2400	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b
NSR E2400-160	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b
NSR E1200-160	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b
NSR E1200	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b	5.3.0b

Required Minimum Components

Interface Manager Firmware

	I100	I110	I120
NSR E2400-160	5.1.08	5.3.0b	5.3.0b
NSR E2400	N/A	5.3.0b	5.3.0b
NSR E1200-160	N/A	5.3.0b	5.3.0b
ESL 9595/9322	3.4	3.4	3.4
ESL 9198/9326	N/A	3.4	3.4
ESLE 712/630	N/A	N/A	1.01
JAVA Run Time	1.4.0	1.4.0	1.4.2
Command View ESL	1.0.00	1.1.00	1.2.00

Firmware & Drivers - Interconnects and OpenView Storage Software

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Interconnects												
Director Switch 2/140	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13
Director Switch 2/64	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13
Edge Switch 2/32	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13
Edge Switch 2/24	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13
Edge Switch 2/16	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13	05.02.00-13
SAN Director 2/128	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
Core Switch 2/64	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
SAN Switch 2/32	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
SAN Switch 2/16N	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
SAN Switch 2/16V	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
SAN Switch 2/16	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
SAN Switch 2/8V	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b	4.2.0b
SAN Switch 2/8	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
SAN Switch 2/16-EL	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
SAN Switch 2/8-EL	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
SAN Switch 16	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2
SAN Switch 8	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2
SAN Switch 16EL	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2
SAN Switch 8EL	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2	2.6.2
FC Switch 16B	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
FC Switch 8B	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
MSA SAN Switch 2/8	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2	3.1.2
Cisco MDS 9506	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a
Cisco MDS 9509	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a
Cisco MDS 9216	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a
Cisco MDS 9120	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a
Cisco MDS 9140	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a	1.2.1a
HP OpenView Storage Software												
OpenView												
Storage Virtual Replicator	3.0b sp1				3.0b sp1			3.0b sp1		3.0b sp1	3.0b sp1	3.0b sp1
OV-SAM	3.1	3.1			3.1	3.0.2	3.1	3.1		3.1	3.1	3.1

STORAGE HARDWARE / SOFTWARE COMPATIBILITY MATRIX

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Firmware & Drivers - Fibre HBAs

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters												
Windows - HP Branded												
A7387A (2G)												
FW	1.81a3	1.81a3			1.81a3			1.81a3		1.81a3	1.81a3	1.81a3
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9			5-5.10a9			5-5.10a9		5-5.10a9	5-5.10a9	5-5.10a9
A7388A (2G)												
FW	1.81a3	1.81a3			1.81a3			1.81a3		1.81a3	1.81a3	1.81a3
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9			5-5.10a9			5-5.10a9		5-5.10a9	5-5.10a9	5-5.10a9
FCA2355 (2G)												
FW	3.92a2	3.92a2	3.92a2	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.92a2
WIN NT 4.0 Driver	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-5.10a9
FCA2408 (2G)												
FW	1.81a2	1.81a2	1.81a2	1.81a2	1.81a2		1.81a2	1.81a2	1.01a2	1.81a2	1.81a2	1.81a2
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9		5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-5.10a9
ISP2312 (2G - BL20pG2 Blade Server)												
FW	1.34	1.34	1.34		1.34		1.34	1.34	1.33	1.34	1.34	1.34
WIN 2000/2003 Driver	9.0.0.13	9.0.0.13	9.0.0.13		9.0.0.13		9.0.0.13	9.0.0.13	8.2.0.72	9.0.0.13	9.0.0.13	9.0.0.13
FCA2101 (2G)												
FW	3.92a2	3.92a2	3.92a2	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.92a2
WIN NT 4.0 Driver	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-5.10a9
FCA2404 (2G)												
FW	1.81a2	1.81a2	1.81a2	1.81a2	1.81a2		1.81a2	1.81a2		1.81a2	1.81a2	1.81a2
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9		5-5.10a9	5-5.10a9		5-5.10a9	5-5.10a9	5-5.10a9
FCA2404DC (2G)												
FW	1.81a2	1.81a2	1.81a2	1.81a2	1.81a2		1.81a2	1.81a2		1.81a2	1.81a2	1.81a2
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9		5-5.10a9	5-5.10a9		5-5.10a9	5-5.10a9	5-5.10a9
FCA2214 / 2214DC (2G)												
FW	1.34	1.34	1.34		1.34		1.34	1.34	1.33	1.34	1.34	1.34
WIN 2000/2003 Driver	9.0.0.13	9.0.0.13	9.0.0.13		9.0.0.13		9.0.0.13	9.0.0.13	8.2.0.72	9.0.0.13	9.0.0.13	9.0.0.13
64-bit/33MHz PCI to FC (1G) KGPSA-CB												
FW	3.92a2	3.92a2	3.92a2	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.91a1	3.92a2	3.92a2	3.92a2
WIN NT 4.0 Driver	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16	4-4.82a16
WIN 2000/2003 Driver	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-4.82a16	5-5.10a9	5-5.10a9	5-5.10a9

Firmware & Drivers - Fibre HBAs

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters												
Windows - HP Branded (IA64)												
A7298A (2G)												
FW	1.81a2	1.81a2	1.81a2				1.81a2	1.81a2		1.81a2		
WIN 2003 Driver	6-5.10a9	6-5.10a9	6-5.10a9				6-5.10a9	6-5.10a9		6-5.10a9		
AB232A (2G)												
FW	1.81a2	1.81a2	1.81a2				1.81a2	1.81a2		1.81a2		
WIN 2003 Driver	6-5.10a9	6-5.10a9	6-5.10a9				6-5.10a9	6-5.10a9		6-5.10a9		
Windows - 3rd Party												
Emulex LP982 (Full-Port Driver)												
FW	1.01a2	1.01a2										1.01a2
WIN 2000/2003 Full-Port Driver	2.21a0	2.21a0										2.21a0
LINUX												
FCA2214 / 2214DC (2G)												
FW	1.34	1.34	1.34	1.34			1.34	1.34	1.29			1.34
Linux Driver (Intel)	7.00.03	7.00.03	7.00.03	7.00.03			6.06.50	7.00.03	6.06.50			7.00.03
ISP2312 (2G - BL20pG2 Blade Server)												
FW	1.34	1.34	1.34				1.34	1.34	1.29			1.34
Linux Driver (Intel)	7.00.03	7.00.03	7.00.03				6.06.50	7.00.03	6.06.50			7.00.03
QLA2200 (1G)												
FW	1.76	1.76						1.76	1.76			
Linux Driver (Intel)	6.0.1c	6.0.1c						6.0.1c	6.0.1			
LINUX (IA64)												
A6826A (2G)												
FW												
RedHat Advanced Server 2.1 Driver	7.00.03	7.00.03	7.00.03	7.00.03				7.00.03				
Red Hat Enterprise Linux 3.0 Driver	7.00.03		7.00.03	7.00.03				7.00.03				
SuSE SLES 8/United Linux Driver	7.00.03	7.00.03	7.00.03	7.00.03								
NetWare												
FCA2210 (2G)												
FW	1.34	1.34			1.34		1.34		1.34		1.34	
NetWare Driver	6.51b	6.50y			6.51b		6.51b		6.50y		6.51b	
64 Bit / 66 MHz PCI to FC HBA (1G)												
NetWare Driver	2.52	2.52		2.52	2.52				2.52		2.52	
32-bit / 33 MHz HBA (1G)												
NetWare Driver	2.52	2.52			2.52				2.52		2.52	
OpenVMS												
FCA2384 (2G - PCI-X)												
FW	3.91a1	3.91a1										
Driver	Native	Native										

Firmware & Drivers - Fibre HBAs

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters												
HP-UX (IA-64)¹												
A9782 (2G Combo Card)												
FW												
fcd Driver	Native	Native	Native	Native				Native				
A9784 (2G Combo Card)												
FW												
fcd Driver	Native	Native	Native	Native				Native				
A6795A (2G)												
FW	1.10	1.10						1.10				
td Driver	Native	Native						Native				
A6826A (2G)												
FW	3.02.165	3.02.165	3.02.165	3.02.165				3.02.165				
fcd Driver	Native	Native	Native	Native				Native				
HP-UX (PA-RISC)¹												
A9782 (2G Combo Card)												
FW												
fcd Driver	Native	Native						Native		Native		Native
A9784 (2G Combo Card)												
FW												
fcd Driver	Native	Native						Native		Native		Native
A6826A (2G)												
fcd Driver	Native	Native						Native		Native		Native
FW	3.02.165	3.02.165						3.02.165		3.02.165		3.02.165
A6795A (2G)												
td Driver	Native	Native	Native	Native		Native	Native	Native	Native	Native		Native
A6684A (1G)												
td Driver	Native	Native						Native				Native
A6685A (1G)												
td Driver	Native	Native						Native				Native
A5158A (1G)												
td Driver	Native	Native	Native	Native		Native	Native	Native	Native	Native		Native
Tru64²												
FCA2684 and FCA2684 DC (2G - PCI-X)												
FW	1.81a5	1.81a5	1.81a5					1.81a5				1.81a5
Tru64 Driver	2.14	2.14	2.14					2.14				2.14
FCA2354 (2G)												
FW	3.91a1	3.91a1	3.91a1	3.91a1		3.91a1	3.91a1	3.91a1	3.91a1			3.91a1
Tru64 Driver	2.14	2.14	2.14	2.10		2.10	2.10	2.14	2.10			2.14
FCA2384 (2G - PCI-X)												
FW	1.00x8	1.00x8						1.00x8				1.00x8
Tru64 Driver	2.14	2.14						2.14				2.14
KGPSA -CA (1G)												
FW	3.91a1	3.91a1	3.91a1	3.81a4		3.91a1	3.81a4	3.91a1	3.91a1			3.91a1
Tru64 Driver	2.14	2.14	2.14	1.32a		2.10	1.32a	2.14	2.10			2.14

NOTES:

1) Supported drivers are included in HWE patch kits for HP-UX. Please refer to the Operating System Details page for latest supported HWE kits.

2) Driver is included in Early Release Patch (ERP) kits for Tru64, problem description number BU040324_EW01.

Firmware & Drivers - Fibre HBAs

Components & Firmware	Current Release	HP Data Protector	Atempo Time Navigator	BakBone NetVault	CA BrightStor ARCserve	CA BrightStor EB	CommVault Galaxy	Legato NetWorker	Syncsort Backup Express	Tivoli Storage Manager	VERITAS Backup Exec	VERITAS NetBackup
Fibre Host Bus Adapters												
AIX												
Cambex PC2000 (2G - PCI)												
AIX Driver w/o Secure Path	1.5.26.0		1.5.26.0	1.5.22.0			1.5.22.0	1.5.26.0				1.5.26.0
AIX Driver w/ Secure Path	1.5.25.3		1.5.25.3	1.5.25.3			1.5.25.3	1.5.25.3				1.5.25.3
IBM 6228 (2Gb)												
AIX Driver	Native	Native	Native				Native	Native	Native	Native		Native
IBM 6239 (2Gb)												
AIX Driver	Native							Native		Native		
Cambex PC1000 (1G)												
AIX Driver w/o Secure Path	1.5.26.0	1.5.19		1.5.11.1			1.5.22.0	1.5.26.0	1.5.22.0	1.5.26.0		1.5.26.0
AIX Driver w/ Secure Path	1.5.25.3						1.5.25.3	1.5.25.3	1.5.25.3	1.5.25.3		1.5.25.3
Solaris												
FCA2257P (2G - PCI)												
Fcode	2.00.05	2.00.05				2.00.05	2.00.05	2.00.05	2.00.05	2.00.05		2.00.05
Solaris Driver	4.11	4.11				3.26	4.11	4.11	3.26	4.11		4.11
FCA2257C (1G - PCI)												
Fcode	2.00.05	2.00.05				2.00.05	2.00.05	2.00.05	2.00.05	2.00.05		2.00.05
Solaris Driver	4.11	4.11				3.26	4.11	4.11	3.26	4.11		4.11
FCA2257S (1G - Sbus)												
Fcode	1.18.3	1.18.3				1.18.3	1.18.3	1.18.3	1.18.3	1.18.3		1.18.3
Solaris Driver	4.11	4.11				3.26	4.11	4.11	3.26	4.11		4.11
SWSA4-SC 64-bit Sbus												
Fcode	13.3.7	13.3.7	13.3.7	13.3.7		13.3.7	13.3.7	13.3.7	13.3.7	13.3.7		13.3.7
Solaris Driver	2.5.9	2.5.9	2.5.9	2.5.9		2.5.9	2.5.9	2.5.9	2.5.9	2.5.9		2.5.9
SWSA4-PC 32-bit PCI												
Fcode	3.0.3							3.0.3		3.0.3		3.0.3
Solaris Driver	2.5.9							2.5.9		2.5.9		2.5.9
SG-XPCI2FC-QF2 (X6768A) (2G - PCI-X)												
Solaris Driver	Native	Native	Native	Native			Native					Native
SG-XPCI1FC-QF2 (X6767A) (2G - PCI-X)												
Solaris Driver	Native	Native					Native					Native
FCX-6562 (2G - PCI)												
Fcode	3.9											3.9
Solaris Driver	5.3											5.3
FCX2-6562 (2G - PCI)												
Fcode	3.9											3.9
Solaris Driver	5.3											5.3
JNI FCE6460 (2G - PCI)												
Fcode	3.9	3.9	3.9	3.9		3.9	3.9	3.9	3.8.9	3.9		3.9
Solaris Driver	5.3	5.3	5.3	5.3		5.3	5.3	5.3	5.2.1	5.3		5.3
JNI FCC6460 (2G - cPCI)												
Fcode	3.9	3.9	3.9	3.9		3.9	3.9	3.9	3.8.9	3.9		3.9
Solaris Driver	5.3	5.3	5.3	5.3		5.3	5.3	5.3	5.2.1	5.3		5.3
JNI FCE6410 (1G - PCI)												
Fcode	3.9	3.9						3.9				3.9
Solaris Driver	4.1.5	4.1.5						4.1.5				4.1.5

Backup Application Details

Name	Version	Date Last Tested	Recommended Tape Driver	Application Information/Support
HP OpenView Storage Data Protector	5.1.1, 5.1, and 5.0	Current	Use Native Drivers	Data Protector Product Information Data Protector Device Support Matrix
Atempo Time Navigator	3.7.0.3	May-04		www.atempo.com
BakBone NetVault	7.1 & 7.3	Mar-04		www.bakbone.com
Computer Associates BrightStor ARCserve for Windows	11.0 and 9.01	Current	CABA Driver for Windows	support.ca.com
Computer Associates BrightStor ARCserve for NetWare	9.0	Current	HP Driver for Netware	support.ca.com
Computer Associates BrightStor ARCserve for Linux	9.0	Current		support.ca.com/
Computer Associates BrightStor Enterprise Backup	BEB v10.5	Oct-03		support.ca.com/
CommVault Systems QiNetix Galaxy	5.0	Jan-04	HP Driver for Windows	www.commvault.com
Legato NetWorker	7.1.1, 7.1, 7.0, and 6.1.4	Current	HP Driver for Windows	www.legato.com
Syncsort Backup Express	2.1.5D	Oct-03	Use Native Drivers	www.syncsort.com
Tivoli Storage Manager	5.2.2.x	Current	Tivoli Driver for Windows	www.tivoli.com
VERITAS Backup Exec for Windows Servers	9.1.4691	Current	BE Driver for Windows	www.veritas.com
VERITAS Backup Exec for NetWare	9.1.1067	Current	BE Driver for Netware	www.veritas.com
VERITAS NetBackup Windows	5.0 and 4.5 FP6/MP6	Current	HP Driver for Windows	www.veritas.com
VERITAS NetBackup UNIX	5.0 and 4.5 FP6/MP6	Current		www.veritas.com

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

Legacy Device Support

Device Name	Last EBS Compatibility Matrix Where Device Was Listed ¹
TL895	December 2002
TL891DLX	December 2002
ESL9326D	April 2002
TL891D	April 2002
DLT 35/70	April 2002
Modular Data Router (MDR)	February 2004

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	http://www.hp.com/go/ebs
Tape Systems	http://www.hp.com/go/tape
Interconnects	http://h18006.www1.hp.com/storage/saninfrastructure.html
RAID Arrays	http://h18006.www1.hp.com/storage/arrayssystems.html
OpenView Storage	http://h18006.www1.hp.com/storage/software.html
Data Protector	http://www.hp.com/go/dataprotector
Storage Media	http://h18006.www1.hp.com/storage/storagemedia.html
Firmware & Driver Downloads	http://welcome.hp.com/country/us/en/support.html