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StorNext 4.1.2 Supported Operating Systems and Platforms

Operating System	Kernel or Release	Platform	MDC Server	File System SAN Client	Distributed LAN Server	File System LAN Client	Storage Manager / SNAPI	Distributed Data Mover	Replication / Dedup Server
Windows Server 2003	R2 SP2*	x86 32-bit		✓		✓			
		x86 64-bit	✓	✓	✓**	✓			
Windows XP	SP2	x86 32-bit		✓		✓			
		x86 64-bit		✓		✓			
	SP3	x86 32-bit		✓		✓			
		x86 64-bit		✓		✓			
Windows Vista	SP1	x86 32-bit		✓		✓			
		x86 64-bit		✓		✓			
	SP2	x86 32-bit		✓		✓			
		x86 64-bit		✓		✓			
Windows Server 2008	SP1	x86 32-bit		✓		✓			
		x86 64-bit	✓	✓	✓**	✓			
	R2	x86 32-bit		✓		✓			
		x86 64-bit	✓	✓	✓**	✓			
	SP2	x86 32-bit		✓		✓			
		x86 64-bit	✓	✓	✓**	✓			
Windows 7		x86 64-bit		✓		✓			
		x86 32-bit		✓		✓			

Notes: When adding StorNext Storage Manager to a StorNext File System environment, the metadata controller (MDC) must be moved to a supported platform. If you attempt to install and run a StorNext 4.1.2 server that is not supported, you do so at your own risk. Quantum strongly recommends against installing non-supported servers.

* StorNext support and has been tested using R2 SP2 since StorNext release 3.1.2.

** Windows Distributed LAN Server supports up to 128 distributed LAN clients.

Note: StorNext support for Partial File Retrieval (PFR) and Apple Xsan is not coupled with StorNext releases, so this information is not included in the table. For compatibility information on PFR and Apple Xsan, see http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/SNMS/Index.aspx. (Click the Documentation tab and navigate to the "Compatibility Guide" heading.)

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StorNext 4.1.2 Supported Operating Systems and Platforms (Continued)

Operating System	Kernel or Release	Platform	MDC Server	File System SAN Client	Distributed LAN Server	File System LAN Client	Storage Manager / SNAPI	Distributed Data Mover	Replication / Dedup Server
RHEL 4 See Note 1 See Note 2	2.6.9-67.EL (Update 6) ‡	x86 32-bit		✓		✓			
	2.6.9-78.EL (Update 7) ‡	x86 32-bit		✓		✓			
	2.6.9-89 EL (Update 8)	x86 32-bit		✓		✓			
	2.6.9-67.EL (Update 6) ‡	x86 64-bit	✓	✓	✓	✓			
	2.6.9-78.EL (Update 7) ‡	x86 64-bit	✓	✓	✓	✓			
	2.6.9-89 EL (Update 8)	x86 64-bit	✓	✓	✓	✓			
RHEL 5 See Note 1 See Note 2	2.6.18-53.EL (Update 1) ‡	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.18-92.EL (Update 2) ‡	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.18-128.EL (Update 3) ‡	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.18-164.EL (Update 4)	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.18-194.EL (Update 5)	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.18-238.EL (Update 6)	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
SLES 10 *** See Note 2	2.6.16-46-0.12 (SP1) ‡‡	x86 32-bit		✓		✓			
	2.6.16.60-0.27 (SP2) ‡‡	x86 32-bit		✓		✓			
	2.6.16.60-0.54.5 (SP3)	x86 32-bit		✓		✓			
	2.6.16-46-0.12 (SP1) ‡‡	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.16.60-0.27 (SP2) ‡‡	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
	2.6.16.60-0.54.5 (SP3)	x86 64-bit	✓	✓	✓	✓	✓	✓	✓
SLES 11 ‡‡ *** See Note 2	2.6.27.19-5	x86 64-bit		✓		✓			
	2.6.32.12-0 (SP1)	x86 64-bit		✓		✓			

Notes:

The RHEL and SLES kernel levels listed indicate which kernel levels were used for the majority of testing. In general, other kernel levels within the same service pack are supported unless otherwise noted.

‡ All releases of RHEL4 and RHEL5 except RHEL4U8 and RHEL5U4 / RHEL5U5 have a possible silent data corruption issue as documented in Product Alert #20. Quantum recommends migrating to RHEL4U8 or RHEL5U4 / RHEL5U5 or later as soon as possible.

‡‡ SLES10 SP1, and certain SLES10 SP2 releases are sensitive to the silent data corruption issue documented in Product Alert #20. The problem has been fixed in SLES 10 SP2 that includes level 2.6.16.60-0.37_f594963d, in SLES 10 SP3, and in the SLES 11 releases. There is no recommended work-around at this time.

*** A "roll" of a particular digit is not indicative that a new SLES service pack has been declared by Novell. The kernel revisions listed in this document are typically (but not always) the first kernel revision of the service pack.

1 The "Xen" virtualization software is not supported for RHEL 4 and RHEL5.

2 HBA multipath customers: please verify with your HBA vendor that your current multipath driver is supported for any planned Linux OS version/update/service pack level. If your driver is not supported for your planned Linux OS version/update/service pack, the StorNext client or server may not be functional after your Linux upgrade.

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StorNext 4.1.2 Supported Operating Systems and Platforms (Continued)

Operating System	Kernel or Release	Platform	MDC Server	File System SAN Client	Distributed LAN Server	File System LAN Client	Storage Manager / SNAPI	Distributed Data Mover	Replication / Dedup Server
Sun Solaris 10	Generic 141444-09	sparc 64-bit		✓					
	Generic 127128-11	Opteron x86 64-bit		✓		✓			
		Intel x86 64-bit		✓		✓			
IBM AIX	6.1	64-bit Power Architecture		✓					
HP-UX	11i v3 (See Note 3)	Itanium 64-bit		✓					
The following platforms have equivalent RedHat releases, and are supported only if the issue can be reproduced on the equivalent RedHat release.									
CentOS	Equivalent supported RHEL5 releases	x86 64-bit		✓		✓			
Scientific Linux‡‡‡	Equivalent supported RHEL5 releases	x86 64-bit		✓		✓			
Oracle Linux‡‡‡	Equivalent supported RHEL5 releases	x86 64-bit		✓		✓			

‡‡‡ These platforms are not specifically tested for StorNext releases. Support for these releases will be at the equivalent RHEL or SLES kernel service pack release, and issues reported against these platforms must be demonstrated to be on the equivalent base RHEL or SLES release for additional support to apply.

Note 3: HPUX 11iv3 requires the “0909 Patch set”

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StorNext 4.1.2 Supported Libraries and Tape Drives

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
Quantum / ADIC	Scalar i500 i5.1 (Quantum, Dell, IBM) i6 (Quantum) i6.1 (Quantum, Dell) i6.2 (IBM)	i5.1: 572G.GS002 i6: Minimum 586G.GS001	IBM LTO-2	i5.1: 8571 i6: A4N0	
			IBM LTO-3	i5.1: 93G0 Ii: 93GE	
			IBM LTO-3 WORM		
			IBM LTO-4	i5.1: 94D4 i6: A239	
			IBM LTO-4 WORM		
			IBM LTO-5	i6: A5M0	
			IBM LTO-5 FC	I6: A5M0	
			HP LTO-4 FC	i5.1: H46Z i6: H58Z	
			HP LTO-4 SAS	I5.1: A45Z i6: A55Z	
			HP LTO-5 FC	i6: I39Z Support starts in Quantum i6.x	
			HP LTO-5 SAS	i6: X38Z Support starts in Quantum i6.x	
	Scalar i2000 / i6000 (i6000 branding started at i2k i8)‡	Minimum: 120A IBM LTO-3, IBM LTO-3 WORM Minimum: 300A.xxx IBM LTO-4, IBM LTO-4 WORM Minimum 540A.xxx i6.5; 590A i6.6: 595A.01601 i6.7: 596A.GS00301 i8.0(.1): 600A.GS23201 i8.1: 605A.GS07401	IBM LTO-1 FC and SCSI	5AU1	i6000 branding started at i2000 i8.
			IBM LTO-2 FC and SCSI	I6.x: 93T0 I8.x: A4N0	
			IBM LTO-3 (2G and 4G)	i6.x: 93G0 i8.x 93GM	
			IBM LTO-3 WORM		
			IBM LTO-4 4G	i6.x: 94D4 i8: A239	
			IBM LTO-4 WORM		
			IBM LTO-5	i8.1: A5M0 requires i8.1 or later	
			HP LTO-3 2G	L67Z	
			HP LTO-3 4G	M69Z	
			HP LTO-3 WORM		
			HP LTO-4 4G	H58Z	
			HP LTO-4 WORM		
			HP LTO-5 FC	I6.x: I24Z i8.0: I39Z I8.1: I3AZ Requires i6.7 or later	
			Quantum DLT-S4	V42	
			Quantum SDLT 320 SCSI	V94	
			Quantum SDLT 600 FC	V53	

‡ Before using DLT cleaning with DLT-S4 or SDLT 600 drives, configure the library (Scalar i2000 or PX720) to disable reporting of the media ID. If media ID reporting is not disabled, StorNext will not recognize the cleaning media (SDLT type 1).

StorNext 4.1.2 Supported Libraries and Tape Drives (Continued)

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
Quantum / ADIC	Scalar i40 / i80	Base (SP5): 105G.GS001 I1 (SP6): 111G.GS003 I2: 120G.GS003	HP LTO-4 FH SAS	A55Z	
			HP LTO-4 FH 4GB FC	H58Z	
			HP LTO-4 HH SAS	U52Z	
			HP LTO-4 HH FC	V52Z	
			HP LTO-5 HH SAS	Z38Z, requires i1	
			HP LTO-5 HH FC	Y23Z, requires i2	
	Scalar 24	Minimum: 107A.GY0002	IBM LTO-1		Not including WORM
			IBM LTO-2		
			IBM LTO-3		
			IBM LTO-4		
	Scalar 50	Minimum: 002A	HP LTO-4		
	Scalar 100	Minimum: 2.05.0003	IBM LTO-1		Not including WORM **NOTE**: 2.10.0013 firmware not to be used.
			IBM LTO-2		
			IBM LTO-3		
			AIT-2		
	Scalar 1000	Minimum: 3.00.0017	IBM LTO-2		Must use SDLC/DAS, SDLC/SCSI Target Mode or Native SCSI
			IBM 3590B1A		
			AIT-1		
	Scalar 10000	Minimum: 110A.00001	IBM LTO-1		Must use SDLC/DAS, SDLC/SCSI Target Mode or Native SCSI
			IBM LTO-2		
			IBM LTO-3	See library firmware requirement	
			IBM LTO-4	See library firmware requirement	
			IBM LTO-3 WORM	See library firmware requirement	
			AIT-2		
			AIT-2 WORM		
			IBM 3592		
	PX500	Minimum: 001A	HP LTO-3		Not including WORM
	PX720 ‡	Minimum 4.00	HP LTO-2		Not including WORM
			HP LTO-3		
			DLT-S4		
	DXI 7500	Minimum: N / A Recently Tested: 05.02.084	Supported emulations include: DLT7000, SDLT320, SDLT600, DLT-S4, Quantum/Certance LTO-2, 3, HP LTO-1, 2, 3, 4, IBM LTO-1, 2, 3, 4		

‡ Before using DLT cleaning with DLT-S4 or SDLT 600 drives, configure the library (Scalar i2000 or PX720) to disable reporting of the media ID. If media ID reporting is not disabled, StorNext will not recognize the cleaning media (SDLT type 1).

StorNext 4.1.2 Supported Libraries and Tape Drives (Continued)

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
Dell	PV136T	Minimum: 3.11	IBM LTO-2		
			IBM LTO-3		
			IBM LTO-4		
	PowerVault ML6000 (6010, 6020, 6030)	Minimum: 585G.GS003	IBM LTO3FH SCSI IBM LTO3FH FC	Minimum: 93G6	LTO-3, LTO-4, LTO-5 WORM capability supported
			IBM LTO4FH SAS IBM LTO4FH FC	Minimum: A232	
			IBM LTO5FH SAS IBM LTO5FH FC	Minimum: A420	
HP	ESL E Series	Minimum: 4.10 Recently tested: 7.50	HP LTO-3	Recently tested: L68W	
			HP LTO-3 WORM		
			HP LTO-4		
			HP LTO-4 WORM		
			HP LTO-5	Recently tested: I25W	
			HP LTO-5 WORM		
	EML E-Series	Minimum: 1070 Recently tested: 1395	HP LTO-3		
			HP LTO-4		
			LTO-4 WORM		
			HP LTO-5	Recently tested: I25S	
	ESL G3	Recently tested: 620H	HP LTO-4 4G	Recently tested: H63W	
			HP LTO-4 WORM		
			HP LTO-5 FC	Recently tested: I3FW	
	MSL 6000	Minimum: 5.07	HP LTO-2		
			HP LTO-3	Recently tested: L67W	
			HP LTO-3 WORM		
			HP LTO-4		
	MSL G3 Series (2024/4048/8096)	Minimum 2024: 0370 (3.70) Minimum 4048: 0600 (6.00) Recently tested: 7.20 Minimum 8096: 0850 (8.50)	HP LTO-2		
			HP LTO-3		
			HP LTO-3 WORM		
			HP LTO-4		
			HP LTO-4 WORM		
			HP LTO-5		

StorNext 4.1.2 Supported Libraries and Tape Drives (Continued)

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
IBM	TS3500	Minimum: 7422 Recently Tested: A420	IBM LTO-2		
			IBM LTO-3	Minimum 93GE	
			IBM LTO-4	Minimum A239	
			IBM LTO-5	Minimum A6S0	
			IBM 3592 (J1A and E05)		
			IBM TS1120 (E05)		Same as IBM3592 E05
	TS3310	Minimum: 587G.GS003	IBM LTO-3	Minimum: 93GE	
			IBM LTO-4	Minimum: A239	
			IBM LTO-5	Minimum: A6S0	
Qualstar	XLS	Minimum: 0880	IBM LTO-3		
			IBM LTO-4		
Sony	Petasite CSM-200	Minimum: 6.30	IBM LTO-4 drive (T1600)		
Spectra Logic	T-Series (T50e, T120, T200, T380, T680, T950, and T-Finity)	Minimum: unknown Recently Tested: 11.4.3	LTO-3	Vendor supported: 93G0	See Bulletin 46 Library firmware is known as BlueScale 11. Both L700 emulation and Native mode are supported In L700 emulation mode, LTO-5 drives report as LTO-4, limiting the capacity of the media.
			LTO-4		
			LTO-5	Recently tested: B170	

StorNext 4.1.2 Supported Libraries and Tape Drives (Continued)

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
Oracle (Sun / StorageTek) SCSI/FC Libraries	L180/L700/L1400	Minimum: 3.18.02	T9840C		
			T9840D		
			T10000A	Minimum 1.40	See Note 2
			T10000B	Minimum 1.40	See Note 2
			HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		
	SL3000	Minimum: 0235 LTO-5 requires minimum 2.35	T9840C		
			T9840D		
			T10000A	Minimum: 1.40	See Note 2
			T10000B	Minimum: 1.40	See Note 2
			HP LTO-3		
			HP LTO-4		
			HP LTO-5	Recently tested: I2DS	
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		
	SL500	Minimum: 1373 LTO-5 requires minimum 1395	HP LTO-3		
			HP LTO-4		
			HP LTO-5	Recently tested: I2DS	
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		
	9740	Minimum: 2000	Sun/STK 9840		Obsolete

Note 2: When using T10000 drives, the STK library parameter “Fastload” must be set to “OFF”.

StorNext 4.1.2 Supported Libraries and Tape Drives (Continued)

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
Oracle (Sun / StorageTek) ACSLS 7.3 ACSLS 7.3.1 ACSLS 8.0.x Libraries See Note 1	L180/L700/ L1400	Minimum: 3.18.02 Recently tested (L700): 3.18	T9840C		
			T9840D		
			T10000A	Minimum: 1.40	See Note 2
			T10000B	Minimum: 1.40	See Note 2
			HP LTO-3	Recently tested: L6CS	
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
	SL3000	Minimum: 2.35 LTO-5 requires minimum 2.35 Recently tested: 2.35	T9840C		
			T9840D		
			T10000A	Minimum: 1.40	See Note 2
			T10000B	Minimum: 1.40 Recently tested: 1.44.210	See Note 2
			HP LTO-3		
			HP LTO-4		
			HP LTO-5	Recently tested: I2DS	Requires minimum ACSLS 7.3.1
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		Requires minimum ACSLS 7.3.1
	SL500	Minimum: 1373 LTO-5 requires minimum 1395	HP LTO-3		
			HP LTO-4		
			HP LTO-5	Recently tested: I2DS	Requires minimum ACSLS 7.3.1
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		Requires minimum ACSLS 7.3.1
	SL8500	Minimum: 4.14 LTO-5 requires minimum 4.73 Recently Tested: 6.02	T9840C		
			T9840D		
			T10000A	Minimum: 1.40	See Note 2
			T10000B	Minimum: 1.40 Recently tested: 1.44	See Note 2
			HP LTO-3		
			HP LTO-4		
			HP LTO-5	Recently tested: I2DS	Requires minimum ACSLS 7.3.1
			IBM LTO-3		
			IBM LTO-4		
			IBM LTO-5		Requires minimum ACSLS 7.3.1

Note 1: The Sun / StorageTek FC and ACSLS sections have been modified to include drive and library permutations that are “paper certified” based on \testing that has been performed and validated by Sun/STK.

Note 2: When using T10000 drives, the STK library parameter “Fastload” must be set to “OFF”.

StorNext 4.1.2 Client Interoperability	
StorNext SAN Client Version	**Platform**
StorNext 3.1.1 and older	Back-revision clients running these StorNext versions are not supported, even during the upgrade process. Clients must be upgraded with MDCs to achieve a compatible back-rev client version.
StorNext 3.1.2 StorNext 3.1.3 StorNext 3.1.4 StorNext 3.1.4.1 StorNext 3.1.5	Solaris 9 (sparc only) AIX 5.3 HPUX 11iv2 SGI IRIX 6.5.30 RHEL4 Itanium SLES10 Itanium SLES10 32-bit Quantum recommends that other clients be upgraded along with the MDC.
StorNext 3.5 StorNext 3.5.1 StorNext 3.5.1.1 StorNext 3.5.2 StorNext 3.5.2.1 StorNext 3.5.3	AIX 5.3 HPUX 11iv2 SGI IRIX 6.5.30 SLES10 Itanium SLES10 32-bit Quantum recommends that other clients be upgraded along with the MDC.
StorNext 4.0 StorNext 4.0.1 StorNext 4.0.1.1 StorNext 4.1 StorNext 4.1.1	Quantum recommends that other clients be upgraded along with the MDC.

StorNext 4.1.2 Client Interoperability			
Apple Xsan Version	**Platform**	**Compatible**	**Notes**
1.4	x86-32 bit	No	See notes 1 and 2
1.4.1	x86-32 bit	No	See notes 1 and 2
1.4.2	x86-32 bit	No	See notes 1 and 2
2.0	x86-32 bit	Yes	See notes 1 and 2
2.1	x86-32 bit	Yes	See notes 1 and 2
2.1.1	x86 32-bit	Yes	See notes 1 and 2
2.2	x86 32-bit	Yes	
	x86 64-bit	Yes	
2.2.1	x86 32-bit	Yes	
	x86 64-bit	Yes	

1 Apple Leopard machines run with 32-bit kernel, 64-bit user

2 Releases earlier than MacOS X 10.5.5 may have limited Windows Access Control Lists (ACL) functionality.

StorNext 4.1.2 Virtual Machine Support
StorNext supports SAN client and DLC clients running within VMware virtual machines on the Windows and Linux operating systems listed in the “Supported Operating Systems and Platforms” section. Refer to StorNext Product Bulletin 69 for additional details about VMware support.

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StorNext 4.1.2 Minimum Firmware Levels for Drives

Drive Type	Minimum Drive Firmware Level	Notes
IBM LTO-1	25D4	Also known as ULT3580-TD1 and ULTRIUM-TD1
IBM LTO-2	3AY4	Also known as ULT3580-TD2 and ULTRIUM-TD2
IBM LTO-3 IBM LTO-3 WORM	4C17	Also known as ULT3580-TD3 and ULTRIUM-TD3
IBM LTO-4	71G0	Also known as ULT3580-TD4 and ULTRIUM-TD4

Note: When using IBM ULTRIUM-TD3 drives with SUSE Linux Enterprise Server 10, you must upgrade the drive firmware to version 64D0 or later.