# **StorNext 3.5.2 and 3.5.2.1 Components 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
Windows 2003 Server	R2 SP2	x86 32-bit	<b>✓</b> *	✓	<b>✓</b> *	✓	
**************************************	112 01 2	x86 64-bit	✓	✓	✓	✓	
	SP2	x86 32-bit		✓		✓	
Windows XP	JF Z	x86 64-bit		✓		<b>✓</b>	
Willdows XI	SP3	x86 32-bit		✓		✓	
	01 0	x86 64-bit		✓		✓	
	SP1	x86 32-bit		✓		✓	
Windows Vista	01 1	x86 64-bit		✓		✓	
Williaows Vista	SP2	x86 32-bit		✓		✓	
	01 2	x86 64-bit		✓		✓	
	SP1	x86 32-bit		✓		✓	
		x86 64-bit	✓	✓	✓	✓	
Windows 2008	R2	x86 32-bit		✓		✓	
VIII 40W3 2000		x86 64-bit	✓	✓	✓	✓	
	SP2	x86 32-bit		✓		✓	
	0.2	x86 64-bit	✓	✓	✓	✓	
Windows 7	N/A	x86 32-bit		✓		✓	
VVIIIdowo 7	11771	x86 64-bit		✓		✓	
RHEL 4 <sup>‡</sup>	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	✓	✓	✓	✓	<b>✓</b> **

**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 3.5.2 server that is not supported, you do so at your own risk. Quantum strongly recommends against installing non-supported servers.

<sup>\*</sup> MDC, DLS, and SM not recommended due to memory management issues.

<sup>\*\*</sup> Storage Manager should not be used with earlier service packs for RHEL4 due to a critical tape rewind problem in the RHEL4 kernel. In order to install StorNext Storage Manager on a Red Hat Enterprise Linux 4 system, you MUST first install 2.6.9-98 EL (Update 8).

All releases of RHEL4 and RHEL5 except RHEL4 Update 8 and RHEL5 Update 4 have a possible silent data corruption issue as documented in Product Alert #20. Quantum recommends that users migrate to RHEL4 Update 8 or RHEL5 Update 4 as soon as possible. Also, note that the "Xen" virtualization software is not supported for RHEL 4 and RHEL 5.

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.

# **StorNext 3.5.2 and 3.5.2.1 Components 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
	2.6.18-53.EL (Update 1) †	x86 64-bit	✓	✓	✓	✓	✓
RHEL 5 <sup>‡</sup>	2.6.18-92.EL (Update 2) †	x86 64-bit	✓	✓	✓	✓	✓
INILL 5	2.6.18-128 (Update 3) <sup>†</sup>	x86 64-bit	✓	✓	✓	✓	✓
	2.6.18-164.EL (Update 4)	x86 64-bit	✓	✓	✓	✓	<b>√</b>
	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	✓	✓	✓	✓	✓
SLES 10 <sup>††</sup> ‡ ***	2.6.16.60-0.54.5 (SP3)	x86 64-bit	✓	✓	✓	✓	<b>√</b>
	2.6.16-46-0.12 (SP1)	Itanium 64- bit	✓	✓			
	2.6.16.60-0.27 (SP2)	Itanium 64- bit	✓	✓			
	2.6.16.60-0.54.5 (SP3)	Itanium 64- bit	✓	✓			
		x86 64-bit		✓		✓	
SLES 11 <sup>‡</sup> ***	2.6.27.19-5	Itanium 64- bit	<b>√</b>	<b>√</b>			
Sun Solaris 10	Generic 120011-14	sparc 64-bit	✓	✓			✓
	Generic 127128-11	Opteron x86 64-bit		✓		✓	
	Generic 127 120-11	Intel x86 64- bit		✓		✓	
SGI-IRIX	6.5.30	64-bit MIPS		✓			

All releases of RHEL4 and RHEL5 except RHEL4 Update 8 and RHEL5 Update 4 have a possible silent data corruption issue as documented in Product Alert #20. Quantum recommends that users migrate to RHEL4 Update 8 or RHEL5 Update 4 as soon as possible. Also, note that the "Xen" virtualization software is not supported for RHEL 4 and RHEL 5.

<sup>††</sup> SLES 10 SP1 (and earlier) and SP2 kernels earlier than 37 are sensitive to the same silent data corruption issue documented in Product Alert #20. The problem has been fixed in 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 workaround at this time.

<sup>‡</sup> 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.

<sup>\*\*\*</sup> 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. Later revisions within the service pack are typically supported.

#### StorNext 3.5.2 and 3.5.2.1 Components **Supported Operating Systems and Platforms (Continued)** Storage Manager SNAPI SAN File System LAN Client LAN File System S Client Distributed L Server Operating **MDC Server Kernel or Release Platform** System 64-bit 5.3 **IBM AIX** Power Architecture Itanium 64-HP-UX 11i v2 MacOS X 10.5.5 w/Xsan x86 32-bit Apple Xsan 2.1.1, StorNext MDC ## x86 32-bit MacOS X 10.6 w/Xsan (Apple Leopard 2.2, StorNext MDC machines run with x86 64-bit 32-bit kernel, 64-bit x86 32-bit MacOS X 10.6 w/Xsan user) 2.2.1, StorNext MDC x86 64-bit

Notes: StorNext support will transition from HP-UX 11i v2 to 11i v3, and from IBM AIX 5.3 to 6.1 on a future date.

<sup>‡‡</sup>Releases earlier than MacOS X 10.5.5 may have limited Windows Access Control Lists (ACL) functionality.

Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
	Scalar i500	Minimum: 140G	IBM LTO-1		Library firmware
			IBM LTO-2		upgrade may be required for LTO-3
			IBM LTO-3		WORM support
			IBM LTO-4		] ''
			BM LTO-3 WORM		420G.GS00400
			IBM LTO-4 WORM		
			HP LTO-4		
	Scalar i2000	Minimum: 120A	IBM LTO-1		
		Minimum (IBM LTO-3,	IBM LTO-2		
		IBM LTO-3 WORM): 300A	IBM LTO-3		
		Minimum (IBM LTO-4, IBM LTO-4 WORM) 540A	IBM LTO-4	See library firmware	
		Minimum: 7404 i/o blades and i6.5 require 590A	IBM LTO-3 WORM	requirement	
			IBM LTO-4 WORM		
			HP LTO-4		
			HP LTO-4 WORM		
			DLT-S4	Minimum: 1F1F	<del>-</del>
	Scalar 24	Minimum: 107A.GY0002	IBM LTO-1		Not including WORM
			IBM LTO-2		1
Quantum / ADIC			IBM LTO-3		-
Quantum / ADIC			IBM LTO-4		-
	Scalar i40	Minimum: 101G.GS005 Recently Tested: 101G.GS005	HP LTO-4		
	Scalar 50	Minimum: 002A	HP LTO-4		
	Scalar 100	Minimum: 2.05.0003	IBM LTO-1		Not including WORM
			IBM LTO-2		
			IBM LTO-3		NOTE: 2.10.0013 is ba
					iiiiiware
	Scalar 1000	Minimum: 3.00.0017	IBM LTO-2		
			IBM 3590B1A		
			AIT-1		
	Scalar 10K	Minimum: 110A.00001	IBM LTO-1		Must use SDLC/SCSI
		Minimum (IBM LTO-3,	IBM LTO-2		target or SCSI direct attached. DAS/ACI is n
		Minimum (IBM LTO-4,	IBM LTO-3		longer supported.
			IBM LTO-4	See library firmware requirement	
			IBM LTO-3 WORM	- requirement	
			AIT-2		1
			AIT-2 WORM		1

**Notes:** 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).

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Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
	PX500	Minimum: 001A	HP LTO-3		Not including WORM 30.0
	PX720	Minimum 4.00	HP LTO-2		Not including WORM
			HP LTO-3		
			DLT-S4		
Quantum / ADIC	DXI 7500	Recently Tested: 05.02.084	Supported emulations include: DLT7000, SDLT320, SDLT600, DLT-S4, Quantum/Certance LTO-2, 3, 4, IBM LTO-1, 2, 3, 4		
	PV136T	Minimum: 3.11	IBM LTO-2		
Dell			IBM LTO-3		
			IBM LTO-4		
	ESL E Series	Minimum: 4.10	HP LTO-3		Including Regular and
			HP LTO-4		WORM
	MSL 6000	Minimum: 0507	HP LTO-2		Including Regular and
			HP LTO-3		WORM
Series			HP LTO-4		
	MSL G3	Minimum 2024: 0370	HP LTO-2		
		(3.70)	HP LTO-3		
HP	(2024/4048/8 096)	Minimum 4048: 0600 (6.00) Minimum 8096: 0850 (8.50)	HP LTO-4		
	EML E-Series	Minimum: 1070	HP LTO-3		LTO-4 WORM added to
			HP LTO-4		matrix at SN 3.5.1; it
	LTO-4 WORM		<ul> <li>was validated earlier but missing from earlier release matrices</li> </ul>		
	TS3500	Minimum: 4680	IBM LTO-2		Clarifications added to
			IBM LTO-3		capture IBM 3592 and
IBM			IBM LTO-4		TS1120 model naming scheme
			IBM 3592 (J1A and E05)		
			IBM TS1120 (E05)		
Qualstar	XLS	Minimum: 0880	IBM LTO-3		
Guaiotai			IBM LTO-4		
Sony	Petasite CSM-200	Minimum: 6.30	IBM LTO-4 drive (T1600)		
Spectralogic	T-Series	Recently Tested: 2000	LTO-3	Vendor supported: 93G0	See Bulletin 46. Library firmware is
			LTO-4	Recently tested: 97F9	known as BlueScale 11

**Notes:** 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).

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Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
	L180/ L700/ L1400	Minimum: 3.18.02	T9840C		
			T9840D		
			T10000A		See Note 2
			T10000B	See Note 4	See Notes 2 and 3
			HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
	SL3000	Minimum: 2.30	T9840C		
Sun /			T9840D		
StorageTek			T10000A		See Note 2
SCSI/FC			T10000B	See Note 4	See Notes 2 and 3
Libraries			HP LTO-3		
			HP LTO-4		
SL500			IBM LTO-3		
			IBM LTO-4		
	SL500	Minimum: 1373	HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
	9740	Minimum: 2000	Sun/STK 9840		Obsolete
			Sun/STK 9940		
	9310	Minimum: None	T10000 Rev A		
	9710	Minimum: None			
	9740	Minimum: 2000			
	L5500	Minimum: None			
Sun / StorageTek ACSLS (pre-7.3) Libraries See Note 5	L700	Minimum: 2.36	Sun/STK 9840, Sun/STK 9940, Sun/STK 9940B, T10000 Rev A, HP LTO-2, HP LTO-4, IBM LTO-2, IBM LTO- 3, IBM LTO-4		See Note 3
	L180	Minimum: 2.00			
	SL8500				
	SL500	Minimum: 10.67			Not including WORM

- 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: Tape cleaning problem introduced with 1.38.209, special fix at RA1.38.209. 1.40.x firmware level where fix was rolled forward has not been determined yet.
- Note 3: When using T10000 drives, the STK library parameter "Fastload" must be set to "OFF".
- Note 4: Minimum: RA1.38.209, but note that 1.38.209 manifests a tape cleaning issue. Recently tested: 1.40.208 (with tape cleaning failure)
- Note 5: ACSLS versions prior to ACSLS 7.3 have been declared end of life and were not tested with this release.

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Vendor Library Family	Libraries	Enforced Minimum / Recently Tested Library Firmware Level	Drive Types	Enforced Minimum / Recently Tested Drive Firmware Level	Notes
	L180/ L700/	00/ Minimum: 3.18.02	T9840C		
	L1400		T9840D		
			T10000A		See Note 2
			T10000B	See Note 4	See Notes 2 and 3
			HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
	SL3000	Minimum: 0230	T9840C		
Sun / StorageTek ACSLS 7.3			T9840D		
			T10000A		See Note 2
			T10000B	1.44 See Note 4	See Notes 2 and 3
			HP LTO-3		
			HP LTO-4		
Libraries			IBM LTO-3		
See Notes 1 and 5			IBM LTO-4		
	SL500	Minimum: 1373	HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
			IBM LTO-4		
	SL8500	Minimum: 4.14	T9840C		
		Recently Tested: 4.70	T9840D		
			T10000A		See Note 2
			T10000B	1.44 See Note 4	See Notes 2 and 3
			HP LTO-3		
			HP LTO-4		
			IBM LTO-3		
		IBM LTO-4			

Note 1: Tape cleaning problem introduced with 1.38.209, special fix at RA1.38.209. 1.40.x firmware level where fix was rolled forward has not been determined yet.

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

Note 3: Minimum: RA1.38.209, but note that 1.38.209 manifests a tape cleaning issue. Recently tested: 1.40.208 (with tape cleaning failure)

Note 4: ACSLS versions prior to ACSLS 7.3 have been declared end of life and were not tested with this release.

StorNext 3.5.2 and 3.5.2.1 Minimum Firmware Levels for Drives				
Drive Type	Minimum Drive Firmware Level	Notes		
IBM LTO-1	25D4	a.k.a. ULT3580-TD1 and Ultrium-TD1		
IBM LTO-2	3AY4	a.k.a. ULT3580-TD2 and Ultrium-TD2		
IBM LTO-3 IBM LTO-3 WORM	4C17	a.k.a. ULT3580-TD3 and Ultrium-TD3		
IBM LTO-4	71G0	a.k.a. 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.