



# StorNext Compatibility Guide

(applies to StorNext 7.0.0 through StorNext 7.2.2)  
6-68801-01, Rev. W

**Quantum**<sup>®</sup>

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## 1. Terminology

Acronyms used within the document:

Acronym	Description
APFO	Advanced Path Failover
DDM	Distributed Data Mover
DLC	Distributed LAN Client
DLS	Distributed LAN Server / Gateway
HA	High Availability
LTFS	Linear Tape File System
MDC	Meta-data Controller
RHEL	Red Hat Enterprise Linux
SLES	SuSE Linux Enterprise Server
SN	StorNext
SNFS	StorNext File System
SNSM	StorNext Storage Manager
XWD	Xcellis Workflow Director
XWE	Xcellis Workflow Extender

## 2. Key Notices

StorNext version 7.2.2 is:

- Only for Xcellis Gen 3 appliances.
- Only intended for new installations.
- Only contains the necessary code to support Xcellis Gen 3 appliances.
- Not an upgrade path for other generations of the hardware.
- Not supported to install on customer supplied hardware.

A future release of StorNext will be compatible with existing Xcellis Gen 1, Gen 2, and Gen 3 systems.

## 3. StorNext Upgrade Matrix

Refer to the following upgrade table to determine what releases are supported for upgrades.

All other versions of StorNext require additional steps to upgrade to this release.

**Note:** For all upgrades on systems that are part of a NAS cluster, upgrade the Appliance Controller software prior to upgrading the StorNext software. See [Upgrade the Appliance Controller](#) on the Appliance Controller documentation center.

### 3.1. StorNext Appliance Upgrade Path

StorNext Appliance Upgrades are more restrictive than RYO upgrades due to the underlying OS upgrade. See below for correct Upgrade paths.

Supported StorNext Appliance Upgrades							
*Supported StorNext Appliances at StorNext Release...	StorNext 6.3.x	StorNext 6.4.1	StorNext 7.0.1	StorNext 7.0.2	StorNext 7.0.3	StorNext 7.1.0	StorNext 7.1.1
<b>...Can upgrade to StorNext:</b>							
StorNext 7.0.3	✓	✓	✓	✓			
StorNext 7.1.0		✓	✓	✓	✓		
StorNext 7.1.1		✓	✓	✓	✓	✓	
StorNext 7.2.0						✓	✓

\* See next section for supported StorNext Appliances.  
 NOTE: StorNext 7.2.2 is only for Xcellis Gen 3 installations. There is no upgrades to StorNext 7.2.2

### 3.2. StorNext RYO Upgrade Path

StorNext RYO upgrade paths are less restrictive than Appliance upgrades. See below for allowed upgrades.

Supported StorNext RYO Upgrades							
Supported StorNext MDCs at StorNext Release...	StorNext 6.3.x	StorNext 6.4.1	StorNext 7.0.1	StorNext 7.0.2	StorNext 7.0.3	StorNext 7.1.0	StorNext 7.1.1
<b>...Can upgrade to StorNext:</b>							
StorNext 7.0.3	✓	✓	✓	✓			
StorNext 7.1.0		✓	✓	✓	✓		
StorNext 7.1.1		✓	✓	✓	✓	✓	
StorNext 7.2.0			✓		✓	✓	✓

#### 4. StorNext Appliance Compatibility

Appliance	Xcellis Workflow Director Gen 3	Xcellis Workflow Extender Gen 3	Xcellis Workflow Director Gen2	Xcellis Workflow Extender Gen2	Xcellis Workflow Director (R630)	Xcellis Workflow Extender (R630)	Xcellis Foundation (R630)	Artico (R630)	H4000
<b>StorNext Release</b>									
7.0.x			✓	✓	✓	✓	✓	✓	✓
7.1.x			✓	✓	✓	✓	✓	✓	✓
7.2.0			✓	✓	✓	✓	✓	✓	✓
7.2.2	✓	✓							

#### 5. Supported Operating Systems and Platforms

- Windows Service Pack levels that are listed, indicate the supported versions. "Dot" releases, for example Windows 8.1, are distinct and not supported unless called out. RedHat Enterprise Linux is specified at the update level. Unless otherwise noted, kernel releases up to and including the release listed in this document are supported. Those beyond the kernel version listed are not supported. SuSE Enterprise Linux is specified at the Service Pack level. Unless otherwise noted, kernel releases up to and including the release listed in this document are supported. Those beyond the kernel version listed are not supported. Debian support is specified at the level of X.Y release levels. Ubuntu support is specified at the level of X.Y.Z release levels.
- HA and GUI are not supported on Xcellis Workflow Extender Gateway Appliances. HA and GUI are supported on all other StorNext Appliances and MDCs.
- Only 64-bit platforms are supported.
- Releases Prior to StorNext 7.0.2 will not install or start on a system that has Red Hat Security-Linux (SELinux) enabled. There are checks in several configuration files and daemons that prevent the installation and use of StorNext with Red Hat Secure Linux (SELinux). Starting with StorNext 7.0.3 these limitations were removed.
- If you are an administrator of a non-StorNext Appliance system (i.e. StorNext Software Only or Roll Your Own System), then you must be careful when upgrading a Linux operating system. You must only upgrade to levels supported in this document.
- Only Items listed below are supported.

**Windows Clients**

Windows 10						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓
7.2.0					✓	✓

Windows 11						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.2, 7.0.3					✓	✓
7.1.x					✓	✓
7.2.x					✓	✓

**Windows MDC Servers**

Windows Server 2012 R2						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓
7.2.x					n/a	n/a

Windows Server 2016						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓
7.2.x					✓	✓

Windows Server 2019						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓
7.2.x					✓	✓

Windows Server 2022						
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x					✓	✓
7.2.x					✓	✓

**Red Hat, Rocky, Alma, and CentOS Servers and Clients**

<b>Red Hat 7.3</b>	<b>Kernel 3.10.0-514.EL</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.x					✓	✓

<b>Red Hat 7.4</b> <b>CentOS 7.4</b>	<b>Kernel 3.10.0-693</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.x					✓	✓
7.1.x					✓	✓

<b>Red Hat 7.5</b> <b>CentOS 7.5</b>	<b>Kernel 3.10.0-862</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.x					✓	✓
7.1.x					✓	✓

<b>Red Hat 7.6</b> <b>CentOS 7.6</b>	<b>Kernel 3.10.0-957</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.x					✓	✓
7.1.x					✓	✓

<b>Red Hat 7.7</b> <b>CentOS 7.7</b>	<b>Kernel 3.10.0-1062</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.1	✓	✓	✓	✓	✓	✓
7.0.2					✓	✓
7.0.3					✓	✓
7.1.x					✓	✓

<b>Red Hat 7.8</b> <b>CentOS 7.8</b>	<b>Kernel 3.10.0-1127</b>					
<b>StorNext Releases</b>	<b>MDC</b>	<b>SNSM</b>	<b>DDM</b>	<b>DLS</b>	<b>SAN</b>	<b>DLC</b>
7.0.x				✓	✓	✓
7.1.x				✓	✓	✓
7.2.x				✓	✓	✓



Red Hat 7.9 CentOS 7.9		Kernel 3.10.0-1160				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.1					✓	✓
7.0.x	✓	✓	✓	✓	✓	✓
7.1.x	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Red Hat 8.0		Kernel 4.18.0-80				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓

Red Hat 8.1		Kernel 4.18.0-147				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓

Red Hat 8.2		Kernel 4.18.0-193				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓

Red Hat 8.3		Kernel 4.18.0-240				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.1.x					✓	✓

Red Hat 8.4 Rocky 8.4 Alma 8.4		Kernel 4.18.0-305 NOTE: Rocky/Alma supported starting with StorNext 7.1.x				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.0.x					✓	✓
7.0.3	✓	✓	✓	✓	✓	✓
7.1.x	✓	✓	✓	✓	✓	✓

Red Hat 8.5  
Rocky 8.5  
Alma 8.5

Kernel 4.18.0-348

StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Red Hat 8.6  
Rocky 8.6  
Alma 8.6

Kernel 4.18.0-372

StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Red Hat 8.7  
Rocky 8.7  
Alma 8.7

Kernel 4.18.0-425

NOTE: For SNSM, glibc must be version 2.28.211 or earlier to avoid issues. Any version containing 8\_10 will not work.

StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Red Hat 8.8  
Rocky 8.8  
Alma 8.8

Kernel 4.18.0-477

NOTE: For SNSM, glibc must be version 2.28.211 or earlier to avoid issues. Any version containing 8\_10 will not work.

StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Red Hat 8.9  
Rocky 8.9  
Alma 8.9

Kernel 4.18.0-513

StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

# Quantum StorNext.

Red Hat 8.10 Rocky 8.10 Alma 8.10	Kernel 4.18.0-553					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

Red Hat 9.0 Rocky 9.0 Alma 9.0	Kernel 5.14.0-70					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x					✓	✓
7.2.x					✓	✓

Red Hat 9.1 Rocky 9.1 Alma 9.1	Kernel 5.14.0-162					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.x					✓	✓
7.2.x					✓	✓

Red Hat 9.2 Rocky 9.2 Alma 9.2	Kernel 5.14.0-284					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

Red Hat 9.3 Rocky 9.3 Alma 9.3	Kernel 5.14.0-362					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

Oracle Servers and Clients						
Oracle OEL 8.3	Kernel 4.18.0-240					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1					✓	✓

Oracle OEL 8.4	Kernel 4.18.0-305					
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1	✓	✓	✓	✓	✓	✓

# Quantum StorNext.

Oracle OEL 8.5		Kernel 4.18.0-348				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Oracle OEL 8.6		Kernel 4.18.0-372				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Oracle OEL 8.7		Kernel 4.18.0-425 NOTE: For SNSM, glibc must be version 2.28.211 or earlier to avoid issues. Any version containing 8_10 will not work.				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1	✓	✓	✓	✓	✓	✓
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Oracle OEL 8.8		Kernel 4.18.0-477 NOTE: For SNSM, glibc must be version 2.28.211 or earlier to avoid issues. Any version containing 8_10 will not work.				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.0	✓	✓	✓	✓	✓	✓
7.2.2			✓	✓	✓	✓

Oracle OEL 8.9		Kernel 4.18.0-513				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

Oracle OEL 9.0		Kernel 5.14.0-70				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1					✓	✓
7.2.x					✓	✓

Oracle OEL 9.1		Kernel 5.14.0-162				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.1.1					✓	✓
7.2.x					✓	✓

Oracle OEL 9.2		Kernel 5.14.0-284				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

Oracle OEL 9.3		Kernel 5.14.0-362				
StorNext Releases	MDC	SNSM	DDM	DLS	SAN	DLC
7.2.x					✓	✓

### Miscellaneous Clients Only

Debian Clients		
Debian 9		4 - Kernel 4.9.82-1+deb9u3
StorNext Releases	SAN	DLC
7.0.x	✓	✓

Debian 10		13 - Kernel 4.19.171-2
StorNext Releases	SAN	DLC
7.0.x	✓	✓
7.1.x	✓	✓
7.2.x	✓	✓

Debian 11		4 – Kernel 5.10.0-16
		8 – Kernel 5.10.0-26
StorNext Releases	SAN	DLC
7.0.x		
7.1.x	✓	✓
7.2.x	✓	✓

Debian 12		0 - Kernel 6.1.0-9
StorNext Releases	SAN	DLC
7.2.x	✓	✓

**SUSE SLES Clients**

<b>SUSE SLES 11</b>	<b>SP3 – Kernel 3.0.76-0.11</b> <b>SP4 – Kernel 3.0.101-63</b>	
<b>StorNext Releases</b>	<b>SAN</b>	<b>DLC</b>
7.0.x	✓	✓

<b>SUSE SLES 12</b>	<b>Base – Kernel 3.12.28-4</b> <b>SP1 – Kernel 3.12.49.11</b>	
<b>StorNext Releases</b>	<b>SAN</b>	<b>DLC</b>
7.0.x	✓	✓

<b>SUSE SLES 12</b>	<b>SP5– Kernel 4.12.14-120</b>	
<b>StorNext Releases</b>	<b>SAN</b>	<b>DLC</b>
7.1.*	✓	✓
7.2.x	✓	✓

<b>SUSE SLES 15</b>	<b>SP2– Kernel 5.3.18-22</b>	
<b>StorNext Releases</b>	<b>SAN</b>	<b>DLC</b>
7.1.*	✓	✓
7.2.x	✓	✓

**Ubuntu Clients**

Ubuntu Linux 18.04		Kernel 4.15	
StorNext Releases	SAN	DLC	
7.0.x	✓	✓	
7.1.x	✓	✓	

Ubuntu Linux 18.04.2		Kernel 4.18	
StorNext Releases	SAN	DLC	
7.0.x	✓	✓	
7.1.x	✓	✓	

Ubuntu Linux 20.04		Kernel 5.4.0	
StorNext Releases	SAN	DLC	
7.0.2	✓	✓	
7.0.3	✓	✓	
7.1.x	✓	✓	

Ubuntu Linux 22.04		Kernel 5.15.0-47	
StorNext Releases	SAN	DLC	
7.1.x	✓	✓	
7.2.x	✓	✓	

Ubuntu Linux 22.10		Kernel 5.19.0-46	
StorNext Releases	SAN	DLC	
7.2.x	✓	✓	

Ubuntu Linux 23.04		Kernel 6.2.0-24	
StorNext Releases	SAN	DLC	
7.2.x	✓	✓	

## 6. StorNext Client Interoperability

Quantum recommends that clients be upgraded along with the MDC per the instructions in the installation procedures on the [StorNext Documentation Center](#).

However, back-revision clients are supported in [Supported Operating Systems and Platforms](#). If this is desired, you must observe the following notes:

- If a version is not listed in [Supported Operating Systems and Platforms](#), it is not supported as a back-revision client; the only exception to this is StorNext 6.4.1 clients which is currently supported. Any previous version of StorNext is not supported.

**NOTE:** Quantum recommends that you upgrade clients to the latest version whenever possible, as StorNext 6.4.1 will be deprecated in the future.

# Quantum StorNext.

- The StorNext SAN or Distributed LAN client’s software installed into a client may be a supported earlier version or the same version as the MDC/appliance. For example, StorNext 7.0.1 SAN or DLC client can be used with a StorNext 7.2.x MDC/appliance.
- The use of StorNext SAN or Distributed LAN client software that is newer than the version installed onto an MDC/appliance is not supported. For example, StorNext 7.2 SAN or DLC client cannot be used with a StorNext 7.1.1 MDC/appliance.
- If using Distributed Data Movers (DDM), the StorNext version of the StorNext DDM MUST match the StorNext version of the MDC.
- All core software components (file system and Storage Manager) installed on the same MDC/appliance must be the same version of StorNext.

## 7. StorNext Virtual Machine Support

StorNext supports SAN client and DLC clients running within VMware virtual machines where the operating system the client is running on is Linux or Windows. Only 64-bit platforms are supported. The following table shows general compatibility.

Operating System	Kernel or Release	File System SAN Client (See Note A)	File System LAN Client (See Note B)
Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11	All SN supported service packs in the supported operating systems and platforms section.	✓	✓
Alma 8.X Alma 9.X	All SN supported service packs in the supported operating systems and platforms section.	✓	✓
Debian 9.4 Debian 10.9 Debian 11.4 Debian 12.0	All SN supported service packs in the supported operating systems and platforms section.	✓	✓
RHEL 7.x RHEL 8.x RHEL 9.x	All SN supported service packs in the supported operating systems and platforms section.	✓	✓
Rocky 8.X Rocky 9.X	All SN supported service packs in the supported operating systems and platforms section.	✓	✓
SLES 12.x SLES 15.x	All SN supported service packs in the supported operating systems and platforms section.	✓	✓



Operating System	Kernel or Release	File System SAN Client (See Note A)	File System LAN Client (See Note B)
Ubuntu 18.x Ubuntu 20.x Ubuntu 22.x Ubuntu 23.x	All SN supported service packs in the supported operating systems and platforms section.	✓	✓

**NOTE A:** Setting up a SAN client within a virtual machine can be complicated and should be done with great care to avoid data loss.

Guests running StorNext SAN clients have limited cluster functionality due to the use of RDMs to access storage. Snapshots, vMotion, DRS, and fault tolerance are disabled. If these features are required, use DLC clients instead.

To configure StorNext SAN clients in VMware guests, be aware of the following considerations:

- StorNext Data LUNs must be assigned to each StorNext SAN client VM using Raw Device Maps (RDMs) in /Physical Mode/ on a Shared virtual SCSI adapter.
- Never use /Virtual Mode/ RDMs for StorNext LUNs.
- Consult your storage vendor for details on properly configuring the storage for use as VMware vSphere to use raw LUNs as RDMs.
- On each SAN client, generate a raid-strings file by running the command:
  - `cvlabel -R > /usr/cvfs/config/raid-strings`
  - Then open /usr/cvfs/config/raid-strings in a text editor and change the third column to JBOD for all storage types. This disables StorNext multi-path handling, which is not needed in a guest. The host will handle multi-pathing.

**NOTE B:** To configure StorNext Distributed LAN Clients in VMware guests, follow the same procedures you would for a physical system. There are no VMware-specific requirements or issues.

## 8. General Compatibility with other Products

StorNext Partial File Retrieval (PFR)					
PFR Version	StorNext 7.0.1	StorNext 7.0.2	StorNext 7.0.3	StorNext 7.1.x	StorNext 7.2.x
2.0.0.16	✓	✓	✓	✓	
2.0.0.17			✓	✓	✓

**Note:** PFR includes StorNext Web Services (V2) with the HTTPS protocol and user authentication.

Product	Reference
F-Series (F1000,F2000,F2100)	For compatibility between an F-Series appliance and StorNext, see the appropriate F-Series product page online at <a href="https://www.quantum.com/documentation">https://www.quantum.com/documentation</a> .

Product	Reference
StorNext Connect	Beginning with StorNext 7.1.0, the StorNext Connect product is not supported; StorNext Connect is replaced by the StorNext Unified User Interface (UUI). If you upgrade your existing StorNext Appliance to StorNext 7.1.0 (or later), or purchase a new system, then the StorNext Connect product is no longer accessible. If you previously configured StorNext Connect on your system, you can log in to the StorNext UUI with your existing StorNext Connect credentials (see <a href="#">Access the StorNext User Interface</a> ).
Appliance Controller	For compatibility between Appliance Controller and StorNext, see <a href="#">Appliance Controller Compatibility</a> .
Lattus	For compatibility between Lattus and StorNext, see the appropriate <i>Lattus Release Notes</i> document available online at <a href="#">Lattus PDF Downloads</a> .
DXi	For compatibility between DXi and StorNext, see the appropriate DXi product page online at <a href="https://www.quantum.com/documentation">https://www.quantum.com/documentation</a> .

## 9. StorNext Appliance I/O Card Compatibility

Product	Reference
Xcellis Workflow Directory Gen3	See <a href="#">Hardware Overview &gt; Server &gt; Features</a> .
Xcellis Workflow Extender Gen3	See <a href="#">Hardware Overview &gt; Features</a> .
Xcellis Workflow Extender Gen2	See <a href="#">Supported expansion cards</a> .
Xcellis Workflow Director Gen2	See <a href="#">Supported expansion cards</a> .
Xcellis Workflow Director (R630)	See <a href="#">Supported expansion cards</a> .
Xcellis Workflow Extender (R630)	See <a href="#">Supported expansion cards</a> .
Xcellis Foundation (R630)	See <a href="#">Supported expansion cards</a> .
Artico (R630)	See <a href="#">Supported expansion cards</a> .

## 10. StorNext Browser Support

StorNext user interfaces have been tested with the following browser versions.

Browser	Version
Google Chrome	114.0 (Official Build) (64-bit)
Google Chrome (macOS)	114.0 (Official Build) (x86_64)
Microsoft Edge	114.0 (Official build) (64-bit)
Mozilla Firefox	124.0 (64-bit)
Firefox	124.0 (64-bit)
Safari (macOS)	15.6.1 (16613.3.9.1.16, 16613)

## 11. StorNext Unified User Interface (UI) Support

The StorNext UI software will not run on Red Hat Enterprise Linux (RHEL) 9.

### 11.1. StorNext 7.2.0/7.2.2 Included Version

Unified User Interface version 10.0.1 is included with the StorNext 7.2.0 and 7.2.2 Appliance release.

The Unified Connector version 7.2.0.80 is included with StorNext 7.2.0 and 7.2.2 Appliance release.

## 12. Supported Quantum Library and Drive List

### Note

- StorNext Storage Manager support for Linear Tape File System (LTFS) based on Open LTFS and is compatible with other vendor's implementations. NOTE: LTFS is slower than ANTF.
- Quantum LTFS does not support Advanced Path Failover.
- Customers running with EDLM or ActiveVault in the library must update their Library Firmware to the version listed below and ensure that the library is configured to use the StorNext Web Services for communication (refer to the specific Quantum Library documentation for details on configuring the Web Services).
  - Scalar i6000, the firmware version will need to be i13 or later.
  - Scalar i500, the firmware version will need to be 710G or later.
- StorNext does not support mixed generation of LTO drives in the same partition (assuming the library can have partitions) or library (if the library does not support partitioning). If you have mixed generation LTO drives in a library, then the drives must be in their own partition.
- LTFS is only available for LTO-5 and greater drives which support partitioning.
- LTO-8 support includes support for LTO-M8 formatted media.
- LTFS is supported for LTO-9 drives starting with StorNext 7.0.3 and later releases.
- LTO-3 & LTO-4 drive support was dropped with StorNext 7.1.0. Please refer to older compatibility guides for compatibility.
- StorNext supports LTO WORM functionality where offered by the drive vendor. Please see the vendor website for more details.

Vendor	Libraries	Drive Types	StorNext 7.0.1	StorNext 7.0.2, 7.0.3	StorNext 7.1.x	StorNext 7.2.x	Notes
Q u a n t u m	Scalar i500	IBM LTO-5	✓	✓	✓	✓	If using EDLM or ActiveVault the library firmware must be at version 710G or later.
		IBM LTO-6	✓	✓	✓	✓	
		IBM LTO-7	✓	✓	✓	✓	
		IBM LTO-8	✓	✓	✓	✓	
		IBM LTO-9		✓	✓	✓	
		HPE LTO-5	✓	✓	✓	✓	
		HPE LTO-6	✓	✓	✓	✓	
	Scalar i6000 / i2000	IBM LTO-5	✓	✓	✓	✓	If using EDLM or ActiveVault the library firmware must be at version i13 or later.
		IBM LTO-6	✓	✓	✓	✓	
		IBM LTO-7	✓	✓	✓	✓	
		IBM LTO-8	✓	✓	✓	✓	
		IBM LTO-9		✓	✓	✓	
		HPE LTO-5	✓	✓	✓	✓	
		HPE LTO-6	✓	✓	✓	✓	
	Scalar i40 / i80	IBM LTO-5	✓	✓	✓	✓	
		IBM LTO-6	✓	✓	✓	✓	
		IBM LTO-7	✓	✓	✓	✓	
		IBM LTO-8	✓	✓	✓	✓	
		IBM LTO-9		✓	✓	✓	
		HPE LTO-5	✓	✓	✓	✓	
		HPE LTO-6	✓	✓	✓	✓	
	Scalar i3	IBM LTO-6	✓	✓	✓	✓	
		IBM LTO-7	✓	✓	✓	✓	
		IBM LTO-8	✓	✓	✓	✓	
		IBM LTO-9		✓	✓	✓	
	Scalar i6	IBM LTO-6	✓	✓	✓	✓	
		IBM LTO-7	✓	✓	✓	✓	
		IBM LTO-8	✓	✓	✓	✓	
IBM LTO-9			✓	✓	✓		
Scalar 10000	IBM LTO-5	✓				<ul style="list-style-type: none"> <li>• Must use SDLC - SCSI Target Mode or Native SCSI.</li> <li>• DAS/ACI is not supported.</li> </ul>	
	IBM 3592	✓					

### 13. Supported Non-Quantum Library and Drive List

Large, complex StorNext Storage Manager solutions support the use of non-Quantum software such as Oracle StorageTek Automated Cartridge System Library Software (ACSL) for centralized, multi-platform tape library management. Additionally, Storage Manager supports physical library partitioning to improve the utilization and logical sharing of enterprise-level tape libraries.

StorNext does not support mixed generation of LTO drives in the same partition (assuming the library can have partitions) or library (if the library does not support partitioning). If you have mixed generation LTO drives in a library, then the drives must be in their own partition.

**Note:** The ACSLS library is not supported with Red Hat 8.

**Note:** nq indicates that the library was not tested, but should continue to work.

Vendor	Libraries	Drive Types	StorNext 7.0.x	StorNext 7.1.x	StorNext 7.2.x	Notes
Dell	PowerVault ML6000 6010 / 6020 / 6030	IBM LTO-5	✓	✓	nq	
		IBM LTO-6	✓	✓	nq	
HPE	ESL E Series	HPE LTO-5	✓	✓	nq	
	MSL G3 Series 2024 / 4048 / 8096	HPE LTO-5	✓	✓	nq	
		HPE LTO-6	✓	✓	nq	
	EML E Series	HPE LTO-5	✓	✓	nq	
	ESL G3	HPE LTO-5	✓	✓	✓	
		HPE LTO-6	✓	✓	✓	
		HPE LTO-7	✓	✓	✓	
	MSL 6480	HPE LTO-5	✓	✓	nq	
HPE LTO-6		✓	✓	nq		
IBM	TS3100	IBM LTO-7	✓	✓	nq	
	TS3500	IBM LTO-5	✓	✓	nq	
		IBM LTO-6	✓	✓	nq	
		IBM LTO-7	✓	✓	nq	
		IBM 3592 (J1A and E05)	✓	✓	nq	
	TS3310	IBM LTO-5	✓	✓	nq	
		IBM LTO-6	✓	✓	nq	
		IBM LTO-7	✓	✓	nq	
	TS4500	TS1155	✓	✓	nq	
		TS1160	✓	✓	nq	
IBM LTO-7		✓	✓	nq		
Oracle SCSJ/	L180 / L700 / L1400	T10000A <sup>1</sup>	✓	✓	✓	
		T10000B <sup>1</sup> Error! Bookmark not defined.	✓	✓	✓	

Vendor	Libraries	Drive Types	StorNext 7.0.x	StorNext 7.1.x	StorNext 7.2.x	Notes	
	SL3000	T10000A <sup>1</sup>	✓	✓	nq		
		T10000B Error! Bookmark not defined.	✓	✓	nq		
		T10000C <sup>1</sup>	✓	✓	nq		
		T10000D Error! Bookmark not defined.	✓	✓	nq		
		HPE LTO-5	✓	✓	nq		
		HPE LTO-6	✓	✓	nq		
		IBM LTO-5	✓	✓	nq		
		IBM LTO-6	✓	✓	nq		
	SL500	IBM LTO-5	✓	✓	nq		
		HPE LTO-5	✓	✓	nq		
	SL150	HPE LTO-5	✓	✓	nq		
		HPE LTO-6	✓	✓	nq		
	Oracle ACSLS 7.3 / 7.3.1 / 8.0.x / 8.1.x / 8.2.x / 8.3 / 8.4 <sup>2</sup>	L180 / L700 / L1400	T10000A <sup>3</sup>	✓	✓	nq	
			T10000B Error! Bookmark not defined.	✓	✓	nq	
SL3000		T10000A <sup>1</sup>	✓	✓	nq		
		T10000B <sup>1</sup>	✓	✓	nq		
		T10000C <sup>1</sup>	✓	✓	nq		
		T10000D <sup>1</sup>	✓	✓	nq		
		HPE LTO-3	✓				
		HPE LTO-4	✓				
		HPE LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1	
		HPE LTO-6	✓	✓	nq	Requires minimum of ACSLS 8.2	
		IBM LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1	
		IBM LTO-6	✓	✓	nq	Requires minimum of ACSLS 8.2	
IBM LTO-7		✓	✓	nq	Requires minimum of ACSLS 8.4		
SL500		HPE LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1	
		IBM LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1	
SL8500		T10000A <sup>1</sup>	✓	✓	nq		

<sup>1</sup> When using a T10000 Rev C drive with ACSLS 8.0.x, please assure that your cleaning cartridges are supported in that ACSLS release. Quantum has found a case where a cleaning cartridge isn't recognized by ACSLS 8.0.x and reports incorrect media type in the StorNext GUI. This report of incorrect media type does not prevent the cleaning cartridge from being successfully used, but can cause operator confusion. ACSLS 8.1.x corrects the issue.

<sup>2</sup> ACSLS versions are supported on Solaris and Linux installs, ACSLS 8.3 is the first version that supports Oracle Linux (6.5 or 6.7).

<sup>3</sup> When using T10000 drives, the STK library parameter "Fastload" must be set to "OFF".

Vendor	Libraries	Drive Types	StorNext 7.0.x	StorNext 7.1.x	StorNext 7.2.x	Notes
		T10000B <small>Error! Bookmark not defined.1</small>	✓	✓	nq	
		T10000C <sup>1</sup>	✓	✓	nq	
		T10000D <sup>1</sup>	✓	✓	nq	
		HPE LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1
		HPE LTO-6	✓	✓	nq	Requires minimum of ACSLS 8.2
		IBM LTO-5	✓	✓	nq	Requires minimum of ACSLS 7.3.1
		IBM LTO-6	✓	✓	nq	Requires minimum of ACSLS 8.2
		IBM LTO-7	✓	✓	nq	Requires minimum of ACSLS 8.3
	IBM LTO-8	✓	✓	nq	Requires minimum of ACSLS 8.3	
	SL150	HPE LTO-5	✓	✓	nq	
	HPE LTO-6	✓	✓	nq	Requires minimum of ACSLS 8.2	
Qualstar	XLS		✓	✓	nq	
		IBM LTO-5				
Spectra Logic	T-Series T50e / T120 / T200 / T380 / T680 / T950 / T-Finity	LTO-4	✓			
		LTO-5	✓	✓	nq	
		LTO-6	✓	✓	nq	
		LTO-7	✓	✓	nq	
		LTO-8	✓	✓	nq	

### 14. Advanced Path Failover Compatibility

Using the StorNext Distributed Data Mover (DDM) feature can boost overall data movement performance by distributing data movement across multiple systems. To ensure data integrity, StorNext software requires the use of SCSI Persistent Reservations on StorNext metadata controllers and DDM clients. As SCSI persistent reservations control access to shared devices, such as tape, Storage Manager retains control of the tape device paths, even if a failover were to occur.

StorNext Storage Manager supports IBM Advanced Path Failover (APFO) for redundant paths to IBM LTO-6, LTO-7, LTO-8 and LTO-9 tape devices. Using IBM APFO requires SCSI Persistent Reservations to be turned off, as device reservations are handled by IBM’s software, not StorNext.

- Notes:**
- IBM strongly recommends that tape and disk I/O use separate HBAs when used with the IBM Advanced Path Failover (**lin\_tape**) driver.
  - Quantum Linear Tape File System does not support Advanced Path Failover

- IBM `lin_tape` driver versions 3.0.10 and 3.0.18 cannot be used with StorNext.
- Please refer to the IBM `lin_tape.ReadMe` the latest details about supported operating system versions and for a listing of supported/non supported versions of the Join Driver.
- SCSI-3 persistent reservations must be enabled in the `lin_tape.conf` file for IBM APFO if data path failover is not enabled. For additional information on how to configure **SCSI Persistent Reservations**, see the [Tape Devices and Persistent SCSI Reserve](#).

## 15. Xsan Compatibility

Apple Xsan MDC with Quantum StorNext Clients			
	StorNext 7.0.x	StorNext 7.1.x	StorNext 7.2.x
Xsan 15 macOS 15*		✓	✓
Xsan 14 macOS 14*	✓	✓	✓
Xsan 7 macOS 13*	✓	✓	✓
Xsan 7 macOS 12*	✓	✓	✓
Xsan 7 macOS 11*	✓	✓	✓
Xsan 5.0.1 macOS 10.15	✓	✓	
Xsan 5.0.1 macOS 10.14	✓	✓	
Xsan 5.0.1 macOS 10.13	✓	✓	
Xsan 5 macOS 10.12	✓	✓	

\* Includes support for Apple Silicon based macOS hardware



Quantum StorNext MDC with Apple Xsan Clients			
	StorNext 7.0.x	StorNext 7.1.x	StorNext 7.2.x
Xsan 15 macOS 15*		✓	✓
Xsan 14 macOS 14*		✓	✓
Xsan 7 macOS 13*	✓	✓	✓
Xsan 7 macOS 12*	✓	✓	✓
Xsan 7 macOS 11*	✓	✓	✓
Xsan 5.0.1 macOS 10.15	✓		
Xsan 5.0.1 macOS 10.14	✓		
Xsan 5.0.1 macOS 10.13	✓		
Xsan 5 macOS 10.12	✓		

\* Includes support for Apple Silicon based macOS hardware

## 16. StorNext Security

StorNext supports two security models:

- UNIX permission bits
- Access Control Lists (ACL)

Although StorNext supports both security models, the version used depends on the client platform and system configuration settings within StorNext.

See the [StorNext Documentation Center](#) for complete details on StorNext security.

## 17. StorNext NAS and Appliance Controller Compatibility

StorNext NAS is covered under the Node license supported under the subscription licenses supported in StorNext 7.x, or as a separately licensed feature under the perpetual licenses supported in StorNext 7.x and earlier. As of StorNext Appliance Controller 3.0.1, it must be manually-enabled on the system.

### 17.1. StorNext 7.2.0/7.2.2 Included Version

Appliance Controller version 4.1.0 is included with the StorNext 7.2.0 and 7.2.2 Appliance release.

## 17.2. Upgrade Paths

For information about upgrading your version of Appliance Controller, see [Supported Appliance Controller Upgrade Compatibility](#) on the *Appliance Controller Documentation Center*.

## 17.3. Compatibility with Quantum Appliances

Appliance Controller 4.1.0 is supported on StorNext 7.1.0 and later. See StorNext Appliance Compatibility.

## 17.4. NAS Protocol Support

The following file-sharing protocols are supported for StorNext NAS on Linux, macOS, and Windows operating systems:

Protocol	Supported Versions/Features
SMB	<ul style="list-style-type: none"> <li>• SMB 3</li> <li>• SMB 2</li> <li>• SMB 1 (CIFS) – Quantum does not recommend.</li> <li>• Protocol auto-negotiation with client.</li> <li>• macOS Named Streams support for file systems using the SMB protocol, with or without Xsan Named Streams. Named Streams is not supported for NFS.</li> </ul>
NFS	<ul style="list-style-type: none"> <li>• NFSv4</li> <li>• NFSv3</li> </ul>

## 17.5. User Directory Support

### Important:

You can use only one authentication scheme for NAS.

The Appliance Controller supports the following user directories:

Authentication Scheme	Supported Versions/Features
Microsoft Active Directory	<ul style="list-style-type: none"> <li>• 2022</li> <li>• 2019</li> <li>• 2016</li> <li>• Unix extensions (RFC2307)</li> <li>• RID UID mapping</li> </ul>
OpenLDAP	<ul style="list-style-type: none"> <li>• Samba 3.2 schema extensions</li> <li>• OpenLDAP with Kerberos</li> </ul>
Apple Open Directory	<ul style="list-style-type: none"> <li>• macOS X 10.5 or higher</li> <li>• Uses CLI configuration procedure</li> </ul>

Local Users	Local users can be created directly on the appliance
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## 17.6. NAS Failover Support

Scale-out NAS clusters support NAS failover for NFSv3, NFSv4.0 and SMB protocols. None Scale out cluster (cluster with a single VIP) only supports SMB failover in an active-backup configuration with two Xcellis Workflow Directors where one can have SMB and legacy NFSv4.0 failover.

For more information, see [NAS Clusters](#).

## 17.7. DNS Load Distribution

This is only supported in scale-out NAS cluster configuration. Evenly distributes client connections to nodes within a NAS cluster, facilitating greater network bandwidth and better redistribution results after a NAS failover occurs.

## 17.8. Feature Licenses and Configuration

### The SNMP feature

- This is installed by default with the Appliance Controller software.
- This does not require a separate license.

### The QXS Array feature

- No longer supported with Appliance Controller 4.1.0/StorNext 7.2.0 and later.

### The QStorage feature

- This has been deprecated and no longer present on a StorNext 7.2.0 and later appliance.

### The iSCSI feature

- This does not require a separate license.

## 17.9. NAS Multiple Protocol Access and File Locking

Multiple protocol access to NAS and file locking is supported when your system is running both StorNext 6.4.x and Appliance Controller 2.3.4 or later. See [Multi-protocol File Locking](#) for information about multi-protocol access and file locking support and compatibility.

## 17.10. Network File System (NFS) Support

NFSv3 and NFSv4 are supported. See [NAS Cluster Configuration](#) for additional information about NFS and NAS Cluster configuration.

### Limitations (for StorNext NAS running on any version of StorNext and Appliance Controller):

- NFSv4 HA lock recovery is only supported over NFS version 4.0.
- NFSv4 delegations are NOT supported.
- ACLs are enforced for NFSv3, but CANNOT be displayed or manipulated.
- Concurrently sharing the same StorNext file system from multiple NFSv4 servers is NOT supported.

### Limitations (for NAS other than StorNext NAS running on any version of StorNext software):

## Quantum StorNext.

- Due to issues with lock recovery that may occur after rebooting, file locking is NOT supported when concurrently sharing the same StorNext file system from multiple NFS servers.
- NFS is ONLY supported when using Linux NFS servers.
- The display and manipulation of ACLs is NOT supported for NFSv3. However, ACLs are still enforced.
- The display and manipulation of ACLs for NFSv4 is NOT supported.
- NFSv4 delegations are NOT supported.

### 18. Data snpolicy Replication Compatibility

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**Note:** snpolicy is no longer supported in StorNext 7.0.x releases

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## 19. FlexTier™ License Compatibility

StorNext’s capability to tier to object storage systems and clouds has been tested with a wide range of disk-based object stores and cloud storage providers. Not every object store is tested with each release. The table below provides the current list of compatible object stores and cloud services. You can request formal compatibility testing for devices and providers not listed below from [Quantum Sales](#).

### 19.1. Object Stores Tested with Current Releases of StorNext Software

The table below provides the list of Object Stores tested current releases of StorNext software.

Vendor/ Provider	Feature/ Platform	StorNext 7.1.x	StorNext 7.0.x	License Type <sup>4</sup>
<b>Amazon S3</b>	Simple Storage Service	✓	✓	FlexTier for Public Cloud
	Infrequent Access	✓	✓	FlexTier for Public Cloud
	Glacier <sup>5</sup>	✓	✓	FlexTier for Public Cloud
	Government Cloud	✓	✓	FlexTier for Public Cloud
	Commercial Cloud Services	✓	✓	FlexTier for Public Cloud
	Snowball	✓	✓	FlexTier for Public Cloud
<b>Microsoft</b>	Azure AppendBlob	✓	✓	FlexTier for Public Cloud
	Azure BlockBlob	✓	✓	FlexTier for Public Cloud
	Azure Data Box	✓	✓	FlexTier for Public Cloud
<b>Google</b>	Cloud Platforms using S3	✓	✓	FlexTier for Public Cloud
	Native Google	✓	✓	FlexTier for Public Cloud
<b>Quantum</b>	Lattus AXR	✓	✓	Object Storage

<sup>4</sup> A FlexTier license is only required for any release prior to StorNext 7.x.

<sup>5</sup> AWS Glacier feature: Amazon AWS “native” Glacier bucket feature is not supported by StorNext.

Vendor/ Provider	Feature/ Platform	StorNext 7.1.x	StorNext 7.0.x	License Type <sup>4</sup>
	Lattus S3	✓	✓	Object Storage
	P100/X100 P100E3 P200/X200	✓	✓	FlexTier for Private Cloud

**19.2. Object Stores Tested with Prior Releases of StorNext Software**

The table below provides the list of S3 compatible Object Stores that have been previously tested but have not been tested in the current releases. This does not mean that it will not work with the current release, but it has not been confirmed to work. If the vendor has modified their S3 interface, it's possible that functionality may not work as expected.

Vendor/ Provider	Feature/ Platform	StorNext 6.2.x	StorNext 6.1.1	StorNext 6.0.5.x	StorNext 6.0.x	License Type <sup>6</sup>
<b>NetApp</b>	Webscale StorageGRID	✓	✓	✓	✓	FlexTier for Private Cloud
<b>IBM</b>	Cloud Object Storage (Cleversafe)	✓	✓	✓	✓	FlexTier for Private Cloud
<b>SCALITY</b>	RING	✓	✓	✓	✓	FlexTier for Private Cloud
<b>HGST</b>	ActiveScale	✓	✓	✓	✓	FlexTier for Private Cloud
<b>SwiftStack</b>	Using S3	✓	✓			FlexTier for Private Cloud
<b>Cloudian</b>	HyperStore	✓	✓	✓	✓	FlexTier for Private Cloud
<b>StorExcel</b>	ORockCloud	✓	✓	✓	✓	FlexTier for Private Cloud
<b>KeeperTech</b>	KeeperSAFE	✓	✓	✓	✓	FlexTier for Private Cloud
<b>Object Matrix</b>	MatrixStore	✓	✓	✓	✓	FlexTier for Private Cloud

<sup>6</sup> A FlexTier license is only required for any release prior to StorNext 7.x.

Vendor/ Provider	Feature/ Platform	StorNext 6.2.x	StorNext 6.1.1	StorNext 6.0.5.x	StorNext 6.0.x	License Type <sup>6</sup>
Wasabi	Hot Cloud Storage	✓	✓	✓	✓	FlexTier for Private Cloud
Caringo	Swarm	✓	✓	✓	✓	FlexTier for Private Cloud
Hitachi Vantara	HCP	✓				FlexTier for Private Cloud

### 19.3. S3 Compatible Object Stores Requiring the S3 Compatible Option

The following object stores and cloud services require that you use the **S3 Compatible** option in the **Provider** list in the StorNext GUI.

S3 Compatible	
Caringo	Swarm
Cloudian	HyperStore
HGST	ActiveScale
Hitachi Vantara	HCP
IBM	Cloud Object Storage (Cleversafe)
KeeperTech	KeeperSAFE
NetApp	Webscale StorageGRID
Object Matrix	MatrixStore
Quantum	P100/X100
SCALITY	RING
StorExcel	ORockCloud
SwiftStack	Using S3
Wasabi	Hot Cloud Storage

Object stores and cloud services not listed have their own **Provider** option in the GUI.

See [Configure Object Storage and Cloud Destinations](#) for additional information.

## 20. FlexSync™

### 20.1. StorNext 7.2.0/7.2.2 Included Version

FlexSync version 3.1.0 is included with the StorNext 7.2.0 and 7.2.2 Appliance release.

### 20.2. Compatibility with StorNext Software and Appliances

FlexSync Version	StorNext 7.0.1, 7.0.2	StorNext 7.0.3	StorNext 7.1.x	StorNext 7.2.x
2.2.x	✓			
2.3.x		✓	✓	✓
3.0.x			✓	✓
3.1.0			✓	✓
3.2.0			✓	✓

- Supported FlexSync data mover platforms include H-Series, Xcellis Workflow Directors, Xcellis Workflow Extenders and M4xx and M6xx series appliances.
- FlexSync supports third party file systems.
- Data protection solutions based on FlexSync must have at least one (1) data mover; multiple data movers can be used to maximize performance.
- A single data mover configuration can be used to protect local or cross-mounted file systems.
- FlexSync configurations that transmit data across a WAN or LAN connection to a remote destination use delta block compression to transfer only new or changed blocks to maximize network bandwidth. FlexSync software must be installed on all WAN or LAN connected destinations. At least two (2) FlexSync data movers must be licenses for WAN and LAN connected configurations.<sup>7</sup>
- The FlexSync license is installed on the Xcellis or M-Series system that is also used when configuring FlexSync. This license key will state the total number of licensed data movers.<sup>7</sup>
- If your system is running FlexSync 2.1.0 or later, and running RedHat Enterprise Linux version 7.7 or Red Hat Enterprise Linux 7.6.x, then you must upgrade your kernel as follows:
  - For RedHat Enterprise Linux version 7.7, upgrade to kernel-3.10.0-1062.el7 or later.
  - For RedHat Enterprise Linux version 7.6.x, upgrade to kernel-3.10.0-957.1.3.el7 or later.

See the [FlexSync Documentation Center](#) for additional details regarding prerequisites, system guidelines, and operating system compatibility.

## 21. Quantum Disk Storage Products Interoperability

### 21.1. H-Series Interoperability

All Quantum-branded H-Series Fibre Channel and iSCSI models can be used as primary storage in a StorNext environment. For multipath settings for the H-Series, see [Update Multipath Settings for External Storage Arrays](#).

### 21.2. F-Series Interoperability

All Quantum-branded F-Series fibre channel and iSCSI models can be used as primary storage in a StorNext environment. For multipath settings for the F-Series, see [Update Multipath Settings for External Storage Arrays](#).

<sup>7</sup> A FlexSync license is only required for any release prior to StorNext 7.x.



**NOTE:** NVMe-oF requires that the F-Series node must contain a 100 GbE Ethernet interface card.

### 21.3. QXS Interoperability and Certification

- All Quantum-branded fibre channel QXS models and iSCSI QXS models can be used as primary storage in a StorNext environment.
- QXS 12G chassis and components (not drives) cannot be interconnected with QXS 6G.
- Usage of virtual volumes is not recommended for StorNext file systems used for latency sensitive streaming workloads.
- Thin-provisioned and tiered storage devices should not be used if performance or consistency of performance is expected or desired.

## 22. Offline File Manager (OFM) Compatibility

Offline File Manager (for Microsoft Windows)		
Supported Operating System	OFM 2.0, 2.1, 2.1.1, 2.1.2	OFM 2.1.4, 2.1.5, 2.1.6
Windows 10	✓	✓
Windows 11		✓
Windows 2022	✓*	✓*

✓\* indicates the version is supported but it has not been tested.

Offline File Manager (for Apple macOS)		
Supported Operating System	OFM 2.0, 2.1, 2.1.1	OFM 2.1.2, 2.1.3, 2.1.4, 2.1.6
macOS 14 *		✓ <sup>1</sup>
macOS 13 *		✓ <sup>2</sup>
macOS 12 *	✓	✓
macOS 11 *	✓	
macOS 10.15	✓	
macOS 10.14	✓	
macOS 10.13	✓	

\* Includes support for Apple Silicon based macOS hardware supported on macOS 11 and above.

✓<sup>1</sup> Indicates the version is supported but it has not been tested.

✓<sup>2</sup> Offline File Manager 2.1.2 and macOS 13 (or later) does not support connecting to a Server Message Block (SMB) share.



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