



CHAPTER 1

Storage Interoperability Matrix

This chapter includes the following topics:

- [Cisco Nexus 7000/6000/5500/5000 Platforms and Cisco MDS 9000 Series, page 1-1](#)
- [OSM Information, page 1-3](#)

If you have comments or questions about the information presented in the *Interoperability Matrix for Cisco Nexus and MDS 9000 Products*, send them to dc-interop@cisco.com.

Cisco Nexus 7000/6000/5500/5000 Platforms and Cisco MDS 9000 Series

[Table 1-1](#) lists the Cisco NX-OS and SAN-OS software releases that support Cisco MDS 9000 switches, Cisco Nexus 7000 Series switches, Cisco Nexus 6000 Series switches, and Cisco Nexus 5500 and 5000 switches. We recommend that customers use the latest release of Cisco NX-OS or SAN-OS software listed in [Table 1-1](#).

The switches listed in [Table 1-1](#) support the disk and tape storage products and the CNA and HBA devices listed in [Table 1-2](#), [Table 1-3](#), and [Table 1-4](#).

Table 1-1 *Cisco NX-OS and SAN-OS Releases Supported on Cisco MDS 9000 Switches, Cisco Nexus 7000 Series Switches, Cisco Nexus 6000 Series Switches, and Cisco Nexus 5000 and 5500 Switches*

Cisco MDS 9000 Switch	Cisco NX-OS or SAN-OS Release
Cisco MDS 9700 Series	6.2(5), 6.2(3), 6.2(1)
Cisco MDS 9500 Series	6.2(5), 6.2(3), 6.2(1)
	5.2(8c), 5.2(8b), 5.2(8a), 5.2(8), 5.2(6b), 5.2(6a), 5.2(6), 5.2(2d), 5.2(2a), 5.2(2), 5.2(1)
	5.0(8), 5.0(7), 5.0(4d), 5.0(4c), 5.0(4b), 5.0(4), 5.0(1a)
	4.2(9), 4.2(7e), 4.2(7d), 4.2(7b), 4.2(7a), 4.2(5), 4.2(3a), 4.2(3), 4.2(1b), 4.2(1a) 4.1(3a), 4.1(1c), 4.1(1b)
	3.3(5b), 3.3(5a), 3.3(5), 3.3(4a), 3.3(4), 3.3(3), 3.3(2), 3.3(1c), 3.3(1a), 3.2(3a), 3.2(3), 3.2(2c), 3.2(1)
	3.1(4), 3.1(3a), 3.1(3), 3.1(2b), 3.1(2a), 3.1(2), 3.1(1)
	3.0(3b), 3.0(3), 3.0(2b), 3.0(2a), 3.0(2), 3.0(1)

Table 1-1 Cisco NX-OS and SAN-OS Releases Supported on Cisco MDS 9000 Switches, Cisco Nexus 7000 Series Switches, Cisco Nexus 6000 Series Switches, and Cisco Nexus 5000 and 5500 Switches (continued)

Cisco MDS 9000 Switch	Cisco NX-OS or SAN-OS Release
Cisco MDS 9250i switch	6.2(5)
Cisco MDS 9222i switch	6.2(5), 6.2(3), 6.2(1) 5.2(8c), 5.2(8b), 5.2(8a), 5.2(8), 5.2(6b), 5.2(6a), 5.2(6), 5.2(2d), 5.2(2a), 5.2(2), 5.2(1) 5.0(8), 5.0(7), 5.0(4d), 5.0(4c), 5.0(4b), 5.0(4), 5.0(1a) 4.2(9), 4.2(7e), 4.2(7d), 4.2(7b), 4.2(7a), 4.2(5), 4.2(3a), 4.2(3), 4.2(1b), 4.2(1a), 4.1(3a), 4.1(1c), 4.1(1b) 3.3(5b), 3.3(5a), 3.3(5), 3.3(4a), 3.3(4), 3.3(3), 3.3(2), 3.3(1c), 3.3(1a), 3.2(3a), 3.2(3), 3.2(2c), 3.2(1a)
Cisco MDS 9148 switch	6.2(5), 6.2(3), 6.2(1) 5.2(8c), 5.2(8b), 5.2(8a), 5.2(8), 5.2(6b), 5.2(6a), 5.2(6), 5.2(2d), 5.2(2a), 5.2(2), 5.2(1) 5.0(8), 5.0(7), 5.0(4d), 5.0(4c), 5.0(4b), 5.0(4), 5.0(1a)
Cisco MDS 9134 and 9124 switches	5.2(8c), 5.2(8b), 5.2(8a), 5.2(8), 5.2(6b), 5.2(6a), 5.2(6), 5.2(2d), 5.2(2a), 5.2(2) 5.0(8), 5.0(7), 5.0(4d), 5.0(4c), 5.0(4b), 5.0(4), 5.0(1a) 4.2(9), 4.2(7e), 4.2(7d), 4.2(7b), 4.2(7a), 4.2(5), 4.2(3a), 4.2(3), 4.2(1b), 4.2(1a), 4.1(3a), 4.1(1c), 4.1(1b) 3.3(5b), 3.3(5a), 3.3(5), 3.3(4a), 3.3(4), 3.3(3), 3.3(2), 3.3(1c), 3.3(1a), 3.2(3a), 3.2(3), 3.2(2c), 3.2(1) 3.1(4), 3.1(3a), 3.1(3), 3.1(2b), 3.1(2a), 3.1(2), 3.1(1)
Cisco Nexus 7700 switches	6.2(6), 6.2(2a), 6.2(2)
Cisco Nexus 7000 switches	6.2(6), 6.2(2a), 6.2(2) 6.1(4a), 6.1(4), 6.1(3), 6.1(2), 6.1(1), 6.0(4), 6.0(3), 6.0(2), 6.0(1) 5.2(9), 5.2(7), 5.2(5), 5.2(4), 5.2(3a), 5.2(1)
Cisco Nexus 6000 Series	7.0(0)N1(1) 6.0(2)N2(3), 6.0(2)N2(2), 6.0(2)N2(1b), 6.0(2)N2(1), 6.0(2)N1(2a), 6.0(2)N1(2), 6.0(2)N1(1a)
Cisco Nexus 5500 switches	7.0(0)N1(1) 6.0(2)N2(3), 6.0(2)N2(2), 6.0(2)N2(1b), 6.0(2)N2(1), 6.0(2)N1(2a), 6.0(2)N1(2), 6.0(2)N1(1) 5.2(1)N1(6), 5.2(1)N1(5), 5.2(1)N1(4), 5.2(1)N1(3), 5.2(1)N1(2a), 5.2(1)N1(2), 5.2(1)N1(1b), 5.2(1)N1(1a), 5.2(1)N1(1) 5.1(3)N2(1c), 5.1(3)N2(1b), 5.1(3)N2(1a), 5.1(3)N2(1), 5.1(3)N1(1a), 5.1(3)N1(1) 5.0(3)N2(2b), 5.0(3)N2(2a), 5.0(3)N2(2), 5.0(3)N2(1), 5.0(3)N1(1c)

Table 1-1 *Cisco NX-OS and SAN-OS Releases Supported on Cisco MDS 9000 Switches, Cisco Nexus 7000 Series Switches, Cisco Nexus 6000 Series Switches, and Cisco Nexus 5000 and 5500 Switches (continued)*

Cisco MDS 9000 Switch	Cisco NX-OS or SAN-OS Release
Cisco Nexus 5000 switches	5.2(1)N1(6), 5.2(1)N1(5), 5.2(1)N1(4), 5.2(1)N1(3), 5.2(1)N1(2a), 5.2(1)N1(2), 5.2(1)N1(1b), 5.2(1)N1(1a), 5.2(1)N1(1)
	5.1(3)N2(1c), 5.1(3)N2(1b), 5.1(3)N2(1a), 5.1(3)N2(1), 5.1(3)N1(1a), 5.1(3)N1(1)
	5.0(3)N2(2b), 5.0(3)N2(2a), 5.0(3)N2(2), 5.0(3)N2(1), 5.0(3)N1(1c), 5.0(2)N2(1a), 5.0(2)N2(1), 5.0(2)N1(1)
	4.2(1)N2(1a), 4.2(1)N2(1), 4.2(1)N1(1)
	4.1(3)N2(1a), 4.1(3)N2(1), 4.1(3)N1(1a), 4.1(3)N1(1)
	4.0(1a)N2(1a), 4.0(1a)N2(1), 4.0(1a)N1(1a), 4.0(1a)N1(1), 4.0(0)N1(2a), 4.0(0)N1(2), 4.0(0)N1(1a)

OSM Information

For HBA or CNA driver and firmware version and storage firmware version, see the following Original Storage Manufacturer (OSM) websites to obtain their latest support matrix.

- EMC—visit the EMC Interoperability support matrices. Refer to this matrix for comprehensive list of the latest supported EMC storage arrays including Sym V-max and newer CLARiiON disk arrays.
<http://www.emc.com/interoperability>
- HDS—visit Product Interoperability Documentation:
<http://www.hds.com/products/interoperability/>
- HP—visit HP Single Point of Connectivity Knowledge (SPOCK) website:
<http://h20272.www2.hp.com/>
See the EBS compatibility matrix
<http://h18006.www1.hp.com/products/storageworks/san/documentation.html>
- IBM—visit <http://www-03.ibm.com/systems/support/storage/ssic/interoperability.wss>
- NetApp—visit Interoperability Matrix Tool (IMT): <http://support.netapp.com/matrix/>

Table 1-2 provides an HBA and CNA support matrix.

Table 1-2 *HBA and CNA Support Matrix*

Vendor	Model	Operating Systems	Version/Patch	FC/FCoE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 6xxx	Cisco Nexus 5xxx	Cisco Nexus 2xxx
Cisco	VIC P81E VIC 1225 VIC 1225T	Windows 2008	All	FCoE	x	x	x	x	x
		Red Hat 5.x	All		x	x	x	x	x
		SUSE 11	All		x	x	x	x	x
		VMware ESX 4.x	All		x	x	x	x	x
		VMware ESX 5.x	All		x	x	x	x	x

Table 1-2 HBA and CNA Support Matrix (continued)

Vendor	Model	Operating Systems	Version/ Patch	FC/FCoE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 6xxx	Cisco Nexus 5xxx	Cisco Nexus 2xxx
Emulex	LPe16000 Series HBA LPe12000 Series HBA LPe11000 Series HBA LP10000 series HBA LP9000 Series HBA	Windows 2000	All	FC	x			x	
		Windows 2003	All		x			x	
		Windows 2008	All		x			x	
		Red Hat AS 4.x	All		x			x	
		Red Hat AS 5.x	All		x			x	
		SUSE 10	All		x			x	
		SUSE 11	All		x			x	
		VMware ESX 4.x	All		x			x	
		VMware ESX 5.x	All		x			x	
		Solaris 10	All		x				
		Solaris 11	All		x				
		HP UX 11	All		x				
		HP UX 11i	All		x				
		AIX 5.x	All		x				
		AIX 6.x	All		x				
		AIX 7.x	All		x				
	OCe 11102 Series CNA OCe 10102 Series CNA	Windows 2003	All	FCoE	x	x	x	x	x
		Windows 2008	All		x	x	x	x	x
		Red Hat 5.x	All		x	x	x	x	x
		SUSE 11	All		x	x	x	x	x
		VMware ESX 4.x	All		x	x	x	x	x
		VMware ESX 5.x	All		x	x	x	x	x

Table 1-2 HBA and CNA Support Matrix (continued)

Vendor	Model	Operating Systems	Version/ Patch	FC/FCoE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 6xxx	Cisco Nexus 5xxx	Cisco Nexus 2xxx
Qlogic	2600 Series HBA 2500 Series HBA 2400 Seies HBA 2300 Series HBA 2200 Series HBA	Windows 2000	All	FC	x			x	
		Windows 2003	All		x			x	
		Windows 2008	All		x			x	
		Red Hat AS 4.x	All		x			x	
		Red Hat AS 5.x	All		x			x	
		SUSE 10	All		x			x	
		SUSE 11	All		x			x	
		VMware ESX 4.x	All		x			x	
		VMware ESX 5.x	All		x			x	
		Solaris 10	All		x				
		Solaris 11	All		x				
		HP UX 11	All		x				
		HP UX 11i	All		x				
		AIX 5.x	All		x				
		AIX 6.x	All		x				
		AIX 7.x	All		x				
	8100 Series CNA 8200 Series CNA	Windows 2003	All	FCoE	x	x	x	x	x
		Windows 2008	All		x	x	x	x	x
		Red Hat 5.x	All		x	x	x	x	x
		SUSE 11	All		x	x	x	x	x
		VMware ESX 4.x	All		x	x	x	x	x
		VMware ESX 5.x	All		x	x	x	x	x

Table 1-3 lists supported storage devices.

Table 1-3 Storage Device Support Matrix

Vendor	Model	FC/FCOE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 6xxx	Cisco Nexus 5xxx
IBM	DS3512	FC	x			x
	DS4700		x			x
	DS4800		x			x
	DS5300		x			x
	DS8100		x			x
	DS8300		x			x
	DS8800		x			x
	XIV		x			x
	SVC/Storwize v7000		x			x
EMC	VMAX	FC	x			x
	DMX-3		x			x
	VNX5500		x			x
	CX4-480		x			x
	CX3-80					x
	VMAX	FCOE	x	x	x	x
	CX4-480		x	x	x	x
	VNX5500		x	x	x	x
HDS	VSP	FC/FCoE	x	x	x	x
	USPV	FC	x			x
	USP		x			x
	HUS150/130		x			x
	AMS2000		x			x
	AMS1000		x			x
HP	P9500	FC/FCoE	x	x	x	x
	P6300/6500		x	x	x	x
	P2000 G3	FC	x			x
	EVA4000/4100/6000/6100/8000/8100		x			x
	EVA4400		x			x
	EVA6400/8400		x			x
	MSA2000		x			x
	XP 10K, 12K, 20K, 24K		x			x
	3PAR F200/400		x			x
	3PAR T400/800		x			x

Table 1-3 Storage Device Support Matrix (continued)

Vendor	Model	FC/FCoE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 6xxx	Cisco Nexus 5xxx
NetApp	FAS2000	FCoE/FC	x	x	x	x
	FAS3000		x	x	x	x
	FAS6000		x	x	x	x
Fujitsu ¹	FUJITSU Storage ETERNUS DX100 S3, DX200 S3, DX500 S3, DX600 S3	FC	x			x
	FUJITSU Storage ETERNUS DX60 S2, DX80 S2, DX90 S2		x			x
	FUJITSU Storage ETERNUS DX400 S2 Series		x			x
	FUJITSU Storage ETERNUS DX8000 S2 Series		x			x
	FUJITSU Storage ETERNUS DX60, DX80, DX90		x			x
	FUJITSU Storage ETERNUS DX400 Series		x			x
	FUJITSU Storage ETERNUS DX8000 Series		x			x
	FUJITSU Storage ETERNUS 2000		x			x
	FUJITSU Storage ETERNUS 4000		x			x
	FUJITSU Storage ETERNUS 8000		x			x
	FUJITSU Storage ETERNUS DX100 S3, DX200 S3, DX500 S3, DX600 S3	FCoE				x
	FUJITSU Storage ETERNUS DX80 S2					x
	FUJITSU Storage ETERNUS DX90 S2					x
	FUJITSU Storage ETERNUS DX400 S2 Series					x
	ETERNUS DX8000 S2 Series					x

1. Vendor tested and certified.

Table 1-4 lists supported tape devices.

Table 1-4 Tape Device Support Matrix

Vendor	Library/Drive Model	FC/FCOE	MDS 9xxx	Cisco Nexus 7xxx	Cisco Nexus 5xxx	Cisco Nexus 2xxx
Oracle/STK	SL3000(Library)	FC	x		x	
	SL500 (Library)		x		x	
	SL150(Library)		x		x	
	L700(Library)		x		x	
	L180(Library)		x		x	
	STK-9840-C	FC	x		x	
	STK-9840-D		x		x	
	STK-9940-B		x		x	
	STK-T10K-A		x		x	
	STK-T10K-B		x		x	
	STK-T10K-C		x		x	
	VTLPlus		x		x	
HP	LTO3	FC	x		x	
	LTO4		x		x	
	LTO5		x		x	
	LTO5HH		x		x	
	LTO6		x		x	
IBM	3584 (library)	FC	x		x	
	3592-EO5		x			
	LTO3		x		x	
	LTO4		x		x	
	LTO5		x		x	
Quantum	I500 (Library)	FC	x		x	

Table 1-5 recommended iSCSI initiators.

Table 1-5 Recommended iSCSI initiators

iSCSI Initiators
Open iSCSI 2.0-872.41.el6
Microsoft iSCSI Initiator 6.2.9200.16451 & 6.1.7601.1751