



## SuSE Linux Enterprise Server (SLES) Support Matrix

### Hitachi Unified Storage 100 Family

**Note:** Configurations added since the last matrix will be shown in **red** text.

#### Introduction

Use this interoperability matrix to check whether a proposed customer configuration is supported. Each tab contains a set of components that together comprise a Hitachi Vantara supported solution. This includes operating system (OS) and maintenance release, host bus adapter (HBA), HBA driver, and storage area network (SAN) switches, both Fibre channel (FC) and Fibre channel over Ethernet (FCoE).

In the sample datapath below, a customer configuration is supported if that particular HBA and driver, switch and switch firmware combinations both appear on the Windows Server 2012 R2 support matrix.

**For example:** Windows Server 2012 R2 host that has an Emulex LPe12000/12002 HBA using driver v2.76.002.001 connected to a Brocade DCX SAN switch with FOS v7.2.1 installed.

If a combination does not appear on the OS support matrix, the customer's Hitachi Vantara Sales Engineer (SE) or other Hitachi field service employee must submit an Interoperability Support Request in order to gain support for the new configuration.

Note that in some cases a component (HBA, driver, switch, switch firmware version) may no longer be supported (end of service life, EOSL) in which case the customer should choose components that are already supported from the matrix. Click on a tab to view associated components.

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## HUS 110 130 150 support for SLES 12 SP1 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Emulex	LPe12000, LPe12002, LPe1205, LPe1205A-HI, LPe1205-HI	v11.2.156.18	
	LPe16000, LPe16002, LPe16002B	v10.6.144.21	
	LPe32000, LPe32002	v11.0.240.0	
QLogic	QLE2560, QLE2562	v8.07.00.18-k	
	QLE2660, QLE2662, QLE2670, QLE2672	v8.07.00.34.12.0-k v8.07.00.39.12.0-k	
	QLE2740, QLE2742, QLE2764	v8.07.00.18-k v8.07.00.34.12.0-k	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 5300, 7800, DCX, DCX-4s	v7.4.2d	
	6505, 6510, 6520, DCX8510	v7.4.2d, v8.0.1 - v8.0.2f	Brocade FOS v8.0.1 is not supported.
	G620, X6	v8.0.1 - v8.0.2f	Brocade FOS v8.0.0 is not supported.
Cisco	9148, 9222i, 9506 (8Gb), 9513, 9513 (8Gb)	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.

## HUS 110 130 150 support for SLES 12 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 11240, 1280, 1285	v1.6.0.18 v1.6.0.25 v2.4.0.13	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS 1340, 1380	v1.6.0.18 v1.6.0.25 v2.4.0.13	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205, LPe1205A-HI, LPe1205-HI	v10.2.8040.1	
	Oce14102	v10.2.8040.1	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 5300, 7800, DCX, DCX-4s	v7.4.2d	
	6505, 6510, 6520, DCX8510	v7.4.2d, v8.0.1 - v8.0.2f	Brocade FOS v8.0.1 is not supported.
	G620, X6	v8.0.1 - v8.0.2f	Brocade FOS v8.0.0 is not supported.
Cisco	9148, 9222i, 9506 (8Gb), 9513, 9513 (8Gb)	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	UCS UCS 6120XP, 6140XP, 6248up, 6296up	v2.2(5b) - v2.2(5d), v2.2(6c) - v2.2(8f)	
	UCS 6324	v3.0(2c) - v3.0(2d), v3.1(1e) - v3.1(1l)	Cisco UCS Mini only

## HUS 110 130 150 support for SLES 11 SP4 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 11240, 1280, 1285	v1.6.0.25 v2.4.0.13	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS 1340, 1380	v1.6.0.25 v2.4.0.13	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205, LPe1205A-HI, LPe1205-HI	v10.2.8061.0 v10.4.8000.0	
	LPe16000, LPe16002, LPe16002B	v10.4.8000.0	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 5300, 7800, DCX, DCX-4s	v7.4.2d	
	6505, 6510, 6520, DCX8510	v7.4.2d, v8.0.1 - v8.0.2f	Brocade FOS v8.0.1 is not supported.
	G620, X6	v8.0.1 - v8.0.2f	Brocade FOS v8.0.0 is not supported.
Cisco	9148, 9222i, 9506 (8Gb), 9513, 9513 (8Gb)	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9710	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	UCS UCS 6120XP, 6140XP, 6248up, 6296up	v3.1(1e) - v3.1(1l)	
	UCS 6324	v3.1(1e) - v3.1(1l)	Cisco UCS Mini only

## HUS 110 130 150 support for SLES 11 SP3 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 11240, 1280, 1285	v1.5.0.45 v1.5.0.49 v1.6.0.6 v1.6.0.10 v1.6.0.12 v1.6.0.16	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS 1340, 1380	v1.6.0.12 v1.6.0.12b v1.6.0.16	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS M81KR	v1.5.0.45 v1.5.0.49 v1.6.0.6 v1.6.0.10 v1.6.0.12 v1.6.0.12b v1.6.0.18 v1.6.0.25	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205, LPe1205A-HI, LPe1205-HI	v8.3.7.10.6p	
	LPe16000, LPe16002, LPe16002B	v8.3.7.10.6p v10.0.803.24	
	LPm16002B-HI	v8.3.7.10.6p	
	OCe10102	v8.3.7.10.6p v10.0.803.24	
	OCe11102	v10.6.144.21	
	OCe14102	v10.2.8040.1	
HP	HP 554FLB	v10.2.340.16	
	A8003A, A8003B, FC2242SR A8002A, A8002B, FC2142SR	v8.3.7.10.6p	
	AE311A, AE312A, FC1142SR, FC1242SR	v8.04.00.13.11.3-k	
	AJ763A, AJ763B, 82E AJ762A, AJ762B, 81E	v8.3.7.10.6p	
	AK344A, AJ764A, 81Q, 82Q	v8.03.07.07-k v8.04.00.13.11.3-k v8.06.00.10.11.1-k	
IBM	42C2069, 42C2071	v8.3.7.10.6p	
	42D0485, 42D0494	v8.3.7.10.6p	
	42D0501, 42D0510	v8.03.07.07-k v8.04.00.13.11.3-k v8.06.00.10.11.1-k	
Qlogic	QLE2560, QLE2562	v8.03.07.07-k v8.04.00.13.11.3-k v8.06.00.10.11.1-k	
	QLE2670, QLE2672	v8.04.00.13.11.3-k	
	QLE8142	v8.06.00.10.11.1-k	
	QLE8152	v8.06.00.10.11.1-k	
	QLE8240, QLE8242	v8.04.00.13.11.3-k	

FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 5300, 7800, DCX, DCX-4s	v7.4.2d	
	6505, 6510, 6520, DCX8510	v7.4.2d, v8.0.1 - v8.0.2f	Brocade FOS v8.0.1 is not supported.
	G620, X6	v8.0.1 - v8.0.2f	Brocade FOS v8.0.0 is not supported.
Cisco	9148, 9222i, 9506 (8Gb), 9513, 9513 (8Gb)	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9148S	v6.2(9a) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9250i	v6.2(5) - v6.2(13b), v6.2(17) - v6.2(27), v7.3(0)D1(1) - v7.3(1)D1(1)	Cisco OS v6.2(15) is no longer supported.
	9396S	v6.2(13) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9706	v6.2(13) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9710	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	9718	v7.3(0)D1(1) - v7.3(1)D1(1), v7.3(0)DY(1)	
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Brocade	VDX 6730 (8G)	v4.0.1	
Cisco	9710 (FCoE), 9718 (FCoE)	v7.3(0)D1(1) - v7.3(1)D1(1)	
	Nexus 5010-2232pp, 5020, 5548p, 5548up, 5548up-2232pp, 5596T-2232TM-E, 5596up	v7.1(0)N1(1a) - v7.1(1)N1(1)	
	Nexus 5672up, 5672up-2248pq	v7.0(0)N1(1) - v7.0(8)N1(1)	
	Nexus 6001p-2248pq, 6001T, 6004	v6.0(2)N1(2), v7.0(0)N1(1) - v7.0(8)N1(1)	Cisco Nexus 6001/6004 series requires v6.0(2)N1(2) and above. Nexus 6001T requires v6.0(2)N2(1) and above.
	Nexus 7710 (FCoE)	v7.3(0)D1(1) - v7.3(1)D1(1)	
	UCS UCS 6120XP, 6140XP, 6248up, 6296up	v2.1(3a) - v2.1(3g), v2.2(1b) - v2.2(1d), v2.2(3a) - v2.2(3f), v2.2(5b) - v2.2(5d), v2.2(6c) - v2.2(8f)	
	UCS 6324	v3.0(2c) - v3.0(2d)	Cisco UCS Mini only

## HUS 110 130 150 support for SLES 11 SP2 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 11240, 1280, 1285	v1.5.0.2 v1.5.0.45	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS M81KR	v1.5.0.2 v1.5.0.20 v1.5.0.45	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS P81E	v1.5.0.20	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205	v8.3.5.48.2p v8.3.5.68	
	LPe1205A-HI, LPe1205-HI	v8.3.5.48.2p	
	LPe16000, LPe16002, LPe16002B	v8.3.5.48.2p v8.3.5.68	
	LPm16002B-HI	v8.3.5.48.2p	
	OCe10102	v8.3.5.48.2p v8.3.5.68	
	OCe11102	v8.3.5.48.2p	
HP	554M, 554FLB	v8.3.5.86.4p	
	A8003A, A8003B, FC2242SR, A8002A, A8002B, FC2142SR	v8.3.5.48.2p	
	AJ763A, AJ763B, 82E, AJ762A, AJ762B, 81E	v8.3.5.48.2p v8.3.5.68	
	AK344A, AJ764A, 81Q, 82Q	v8.03.07.07-k v8.03.7.13.11.1-k v8.05.00.06.06.0-k	
IBM	42D0485, 42D0494	v8.3.5.48.2p v8.3.5.68	
	42D0501, 42D0510	v8.03.07.07-k v8.03.7.13.11.1-k v8.05.00.06.06.0-k	
Qlogic	QLE2560, QLE2562	v8.03.07.07-k v8.03.7.13.11.1-k v8.05.00.06.06.0-k	
	QLE2670, QLE2672	v8.04.00.06.11.1-k	
	QLE8142	v8.05.00.03.06.0-k	
	QLE8152	v8.03.07.13.11.1-k	
	QLE8240, QLE8242	v8.03.07.07-k	
	QLE8360, QLE8362	v8.05.00.03.11.1-k	

FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 5300, 7800, DCX, DCX-4s	v7.4.2d	
	6505, 6510, 6520, DCX8510	v7.4.2d	
Cisco	9148, 9222i, 9506 (8Gb), 9513, 9513 (8Gb)	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	Cisco 9148S	v6.2(9a) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	Cisco 9250i	v6.2(5) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	Cisco 9706	v6.2(13) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
	Cisco 9710	v6.2(1) - v6.2(13b), v6.2(17) - v6.2(27)	Cisco OS v6.2(15) is no longer supported.
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	Nexus 5010-2232pp, 5020, 5548p, 5548up, 5548up-2232pp, 5596T-2232TME, 5596up	v5.1(3)N1(1) - v5.1(3)N2(1c), v5.2(1)N1(1) - v5.2(1)N1(8b), v6.0(2)N1(2) - v6.0(2)N1(2a), v6.0(2)N2(1) - v6.0(2)N2(6), v7.0(0)N1(1) - v7.0(6)N1(1)	
	Nexus 6001p-2248pq, 6001T, 6004	v6.0(2)N1(2) -v6.0(2)N1(2a), v6.0(2)N2(1) - v6.0(2)N2(6), v7.0(0)N1(1) - v7.0(6)N1(1)	Cisco Nexus 6001/6004 series requires v6.0(2)N1(2) and above. Nexus 6001T requires v6.0(2)N2(1) and above.
	UCS UCS 6120XP, 6140XP, 6248up, 6296up	v2.0(2m), v2.0(2q), v2.0(3a) - v2.0(3c), v2.0(4a) - v2.0(4d), v2.0(5a) - v2.0(5f), v2.1(1a) - v2.1(1f), v2.1(2a) - v2.1(2d)	