



## **SuSE Linux Enterprise Server (SLES) Support Matrix** **Hitachi VSP 5x00, G1x00, F1500, E990, Gxx0, Fxx0, HUS VM**

**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 an Hitachi Vantara-supported solution. This includes operating system (OS) and maintenance release, host bus adapter (HBA), HBA driver, and storage area network (SAN) switches, for Fibre channel (FC), Fibre channel over Ethernet (FCoE), and 10 Gbps iSCSI.

**Note:** The arrays supported now include the VSP E990.

### **Note on the 16 & 32 Gb Interfaces:**

- The 32Gb interface is only available on the VSP 5x00, E990, GX00 and FX00 arrays. It is supported with both 16 & 32Gb SFPs and operates at a maximum of 32Gbps.
- The HUS VM does not have a 16Gb FC interface.
- With SVOS 7, for Direct connection to 16Gb or 32Gb FC you must set the storage port to Fabric = OFF and Connection Type P-to-P (Point to Point)

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.

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## VSP 5x00, G1x00, F1500, E990, Gxx0, Fxx0 support for SLES 15 SP2 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Emulex	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v12.8.0.0	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v12.8.0.0	
	LPe35000, LPe35002	v12.8.0.0	
Qlogic	QLE2660, QLE2662, QLE2670, QLE2672	v10.01.00.25-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v10.01.00.25-k	
<b>FC Switches</b>			
Manufacturer	Models	Firmware Versions	Notes
Brocade	6505, 6510, 6520, 7840, DCX 8510	v8.2.2 - <b>v8.2.2d</b>	
	G610	v8.2.2 - <b>v8.2.2d</b> , v9.0.0a - v9.0.0b	
	G620, X6	v8.2.2 - <b>v8.2.2d</b> , v9.0.0a - v9.0.0b	
	G630	v8.2.2 - <b>v8.2.2d</b> , v9.0.0a - v9.0.0b	
	G620v2, G630v2, G720, X6 Plus, X7	v9.0.0a - v9.0.0b	
Cisco	9148S, 9706	v8.4(1) - v8.4(2a)	
	9132T, 9148T, 9396T	v8.4(1) - v8.4(2a)	
	9250i	v8.4(1) - v8.4(2a)	
	9396S	v8.4(1) - v8.4(2a)	
	9710, 9718	v8.4(1) - v8.4(2a)	
	9706 (32Gb), 9710 (32Gb), 9718 (32Gb)	v8.4(1) - v8.4(2a)	

10 Gbps iSCSI Storage Interface			
iSCSI Adapters			
Manufacturer	Models	Driver Versions	Notes
Any	10 GbE NIC	Bundled	
Emulex	OCe14102	v11.4.0.1	
<b>iSCSI Switches</b>			
Manufacturer	Models	Firmware Versions	Notes
Any	Generic 10GigE Switch	Any 10GigE FW	

## VSP 5x00, G1x00, F1500, E990, Gxx0, Fxx0 support for SLES 15 SP1 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1440, 1455, 1457, 1480	v2.0.0.59-133.0	
Emulex	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v12.2.383.0 v12.6.182.4	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v12.2.383.0 v12.6.182.4	
	LPe35000, LPe35002	v12.6.182.4	
HPE	3530C	v12.2.383.0	
	3830C	v10.00.00.13-k	
	SN1000Q	v10.00.00.13-k	
	SN1100Q	v10.00.00.13-k	
	SN1600Q	v10.00.00.13-k	
	SN1100E	v12.2.383.0	
	SN1200E	v12.2.383.0	
Qlogic	QLE2660, QLE2662, QLE2670, QLE2672	v10.00.00.13-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v10.00.00.13-k	
	QLE8360, QLE8362	v10.00.00.13-k	
	QLE8442	v2.11.8	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	6505, 6510, 6520, 7840, DCX 8510	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b>	Brocade FOS v8.2.1 is not supported.
	G610	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b> , v9.0.0a	Brocade FOS v8.2.1 is not supported.
	G620, X6	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b> , v9.0.0a	Brocade FOS v8.2.1 is not supported.
	G630	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b> , v9.0.0a	Brocade FOS v8.2.1 is not supported.
	G620v2, G630v2, G720, X6 Plus, X7	v9.0.0a - v9.0.0b	
Cisco	9148S, 9706	v6.2(29) - v6.2(31), v8.3(1) - v8.3(2)	
	9250i	v8.3(1) - v8.3(2)	
	9396S	v8.3(1) - v8.3(2)	
	9710	v6.2(29) - v6.2(31), v8.3(1) - v8.3(2)	
	9718	v8.3(2)	Cisco OS v8.3(1) is not supported on the 9718.
	9706 (32Gb), 9710 (32Gb)	v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9718 (32Gb)	v8.3(2), v8.4(1) - v8.4(2a)	Cisco OS v8.3(1) is not supported on the 9718.
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	9148S, 9706 (FCoE)	v6.2(29) - v6.2(31), v8.4(2)	
	Nexus 5672up, 5672up-2248pq	v7.3(3)N1(1)	
	UCS 6454	v4.1(1b)	
FCOE Storage Interface - VSP G1000 only			
Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Emulex	OCe14102	v12.2.0.0	
QLogic	QLE8360, QLE8362	v10.00.00.13-k	
	QLE8442	v2.11.8	
FCOE Switches			
Manufacturer	Models	Driver Versions	Notes
Cisco	9148S, 9706 (FCoE)	v6.2(29) - v6.2(31), v8.4(1) - v8.4(2a)	
	Nexus 5672up, 5672up-2248pq	v7.3(3)N1(1)	
10 Gbps iSCSI Storage Interface			

<b>ISCSI Adapters</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Any	10 GbE NIC	Bundled	
Emulex	OCe14102	v11.4.0.1	
<b>ISCSI Switches</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Any	Generic 10GigE Switch	Any 10GigE FW	

**VSP 5x00, G1x00, F1500, E990, Gxx0, Fxx0 support for SLES 15 (X64)**  
**SLES 15 GA is EOSL. Extended support ends 12/31/22.**

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 1240, 1280, 1285	v1.6.0.34	Must connect to a Cisco UCS or UCS Mini top of rack interconnect switch.
	UCS 1340, 1380	v2.0.0.42-77.0 v2.0.0.54-112.0	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS 1440, 1455, 1457, 1480	v2.0.0.42-77.0 v2.0.0.54-112.0	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v12.0.0.1	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v12.0.0.1	
	OCe14102	v12.0.0.1	
HPE	3530C	v12.0.0.1	
	3830C	v10.00.00.06-k	
	SN1000Q	v10.00.00.06-k	
	SN1100Q	v10.00.00.06-k	
	SN1600Q	v10.00.00.06-k	
	SN1100E	v12.0.0.1	
	SN1200E	v12.0.0.1	
	SN1600E	v12.0.0.1	
IBM	00Y3337, 00Y3341	v10.00.00.06-k	
	95Y2386, 95Y2391	v12.0.0.1	
QLogic	QLE2660, QLE2662, QLE2670, QLE2672	v10.00.00.06-k v10.00.00.11-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v10.00.00.06-k v10.00.00.11-k	
	QLE8360, QLE8362	v10.00.00.06-k	
	QLE8442	v2.11.8	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	6505, 6510, 6520, 7840, DCX 8510	v7.4.2d - v7.4.2g, v8.1.2a -v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.1.2c, v8.1.2e, v8.2.0, and v8.2.1 are not supported.
	G610	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
	G620, X6	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
	G630	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
Cisco	9132T	v8.3(1) - v8.3(2)	
	9148S, 9706	v6.2(29) - v6.2(31), v8.2(1) - v8.2(2), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9148T, 9396T	v8.3(1) - v8.3(2)	
	9250i	v6.2(29) - v6.2(31), v8.2(1) - v8.2(2), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9396S	v6.2(29) - v6.2(31), v8.2(1) - v8.2(2), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9710	v6.2(29) - v6.2(31), v8.2(1) - v8.2(2), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9718	v8.2(1) - v8.2(2), v8.3(2), v8.4(1) - v8.4(2a)	Cisco OS v8.3(1) is no longer supported on the 9718.
	9706 (32Gb), 9710 (32Gb), 9718 (32Gb)	v8.2(1) - v8.2(2), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	

FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	Nexus 5548p, 5548up, 5596up, 5596T	v7.3(3)N1(1)	
	Nexus 5672up, 5672up-2248pq	v7.3(1)N1(1), v7.3(3)N1(1)	
	UCS 6332-16UP	v4.0(4b), v4.0(4g)	

### FCOE Storage Interface - VSP G1000 only

Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Emulex	OCe14102	v12.0.0.1 v12.0.1110.6151	
QLogic	QLe8362	v10.00.00.06-k	

FCOE Switches			
Manufacturer	Models	Driver Versions	Notes
Cisco	9148S, 9706 (FCoE)	v6.2(29) - v6.2(31), v8.4(1) - v8.4(2a)	
	Nexus 5672up, 5672up-2248pq	v7.3(1)N1(1)	

### 10 Gbps iSCSI Storage Interface

iSCSI Adapters			
Manufacturer	Models	Driver Versions	Notes
Any	10 GbE NIC	Bundled	
Emulex	OCe14102	v11.4.0.1	
QLogic	QLE8362	v5.04.00-k6	
	QLE8442	v1.712.30-0	

iSCSI Switches			
Manufacturer	Models	Firmware Versions	Notes
Any	Generic 10GigE Switch	Any 10GigE FW	
Cisco	Nexus 5696Q, 5672up, 56128p	v7.3(1)N1(1)	

## VSP 5x00, G1x00, F1500, Gxx0, Fxx0 support for SLES 12 SP5 (X64)

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Emulex	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v12.4.0.0	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v12.4.0.0	
HPE	3530C	v12.4.0.0	
	3830C	v10.01.00.18-k	
	SN1000Q	v10.01.00.18-k	
	SN1100Q	v10.01.00.18-k	
	SN1600Q	v10.01.00.18-k	
	SN1100E	v12.4.0.0	
	SN1200E	v12.4.0.0	
Qlogic	QLE2660, QLE2662, QLE2670, QLE2672	v10.01.00.18-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v10.01.00.18-k	
<b>FC Switches</b>			
Manufacturer	Models	Firmware Versions	Notes
Brocade	6505, 6510, 6520, 7840, DCX 8510	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b>	Brocade FOS v8.2.1 is not supported.
	G610	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b>	Brocade FOS v8.2.1 is not supported.
	G620, X6	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b>	Brocade FOS v8.2.1 is not supported.
	G630	v8.2.1a - v8.2.1e, v8.2.2 - <b>v8.2.2d</b>	Brocade FOS v8.2.1 is not supported.
	G620v2, G630v2, G720, X6 Plus, X7	v9.0.0a - v9.0.0b	
Cisco	9148S, 9706	v8.3(1) - v8.3(2)	
	9250i	v8.3(1) - v8.3(2)	
	9396S	v8.3(1) - v8.3(2)	
	9710	v8.3(1) - v8.3(2)	
	9718	v8.3(2)	Cisco OS v8.3(1) is not supported on the 9718.
<b>10 Gbps iSCSI Storage Interface</b>			
iSCSI Adapters			
Manufacturer	Models	Driver Versions	Notes
Any	10 GbE NIC	Bundled	
Emulex	OCe14102	v11.4.0.1	
<b>iSCSI Switches</b>			
Manufacturer	Models	Firmware Versions	Notes
Any	Generic 10GigE Switch	Any 10GigE FW	

**VSP 5x00, G1x00, F1500, E990, Gxx0, Fxx0 support for SLES 12 SP4 (X64)**  
**SLES 12 SP4 is EOSL. Extended support ends 6/30/23.**

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1340, 1380	v1.6.0.47	Must connect to a Cisco UCS top of rack interconnect switch.
	UCS 1440, 1455, 1457, 1480	v1.6.0.34 v2.0.0.59-133.0	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v12.0.0.6	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v12.0.0.6	
	LPe35000, LPe35002	v12.0.0.6	
	OCe14102	v12.0.0.6	
HPE	3530C	v12.0.0.6	
	3830C	v10.00.00.11-k	
	SN1000Q	v10.00.00.11-k	
	SN1100Q	v10.00.00.11-k	
	SN1600Q	v10.00.00.11-k	
	SN1100E	v12.0.0.6	
	SN1200E	v12.0.0.6	
	SN1600E	v12.0.0.6	
IBM	00Y3337, 00Y3341	v10.00.00.11-k	
	95Y2386, 95Y2391	v12.0.0.6	
Qlogic	QLE2660, QLE2662, QLE2670, QLE2672	v10.00.00.11-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v10.00.00.11-k	
	QLE8360, QLE8362	v10.00.00.11-k	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	6505, 6510, 6520, 7840, DCX 8510	v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.1 is not supported.
	G610	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
	G620, X6	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
	G630	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.
Cisco	9132T	v8.3(1) - v8.3(2)	
	9148S, 9706	v8.3(1) - v8.3(2)	
	9250i	v8.3(1) - v8.3(2)	
	9396S	v8.3(1) - v8.3(2)	
	9710	v8.3(1) - v8.3(2)	
	9718	v8.3(2)	Cisco OS v8.3(1) is not supported on the 9718.
	9706 (32Gb), 9710 (32Gb)	v8.3(1) - v8.3(2)	
	9718 (32Gb)	v8.3(2)	Cisco OS v8.3(1) is not supported on the 9718.
FCOE Switches (FCF mode)			
Manufacturer	Models	Firmware Versions	Notes
Cisco	UCS 6332-16UP	v4.0(1c)	
	UCS 6454	v4.1(1b)	



<b>FCOE Storage Interface - VSP G1000 only</b>			
<b>Converged Network Adapters (CNA)</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Emulex	OCe14102	v12.0.0.6	
QLogic	QLe8362	v10.00.00.11-k	
<b>FCOE Switches</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Cisco	Nexus 5672up, 5672up-2248pq	v7.3(1)N1(1)	
<b>10 Gbps iSCSI Storage Interface</b>			
<b>iSCSI Adapters</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Any	10 GbE NIC	Bundled	
Emulex	OCe14102	v11.4.0.1	
QLogic	QLe8362	v5.04.00-k6	
<b>iSCSI Switches</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Any	Generic 10GigE Switch	Any 10GigE FW	
Cisco	Nexus 5696Q, 5672up, 56128p	v7.3(1)N1(1)	

**VSP G1x00, F1500, Gxx0, Fxx0 support for SLES 12 SP3 (X64)**  
**SLES 12 SP3 is EOSL. Extended support ends 6/30/22.**

<b>FC Storage Interface</b>			
<b>Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Cisco	UCS 1340, 1380	v1.6.0.44 v1.6.0.50	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205	v11.4.0.5	
	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v11.4.0.5	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v11.4.0.5	
	OCe11102	v11.4.0.5	
HPE	AJ763A, AJ763B, 82E	v11.4.0.5	
	AJ762A, AJ762B, 81E		
	AK344A, AJ764A, 81Q, 82Q	v9.00.00.00-k	
	SN1000Q	v9.00.00.00-k	
	SN1100Q	v9.00.00.00-k	
	SN1600Q	v9.00.00.00-k	
	SN1100E	v11.4.0.5	
	SN1200E	v11.4.0.5	
IBM	42D0485, 42D0494	v11.4.0.5	
	42D0501, 42D0510	v9.00.00.00-k	
QLogic	QLE2560, QLE2562, QLE2564	v9.00.00.00-k	
	QLE2660, QLE2662, QLE2670, QLE2672	v9.00.00.00-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v9.00.00.00-k	
	QLE8360, QLE8362	v9.00.00.00-k	
<b>FC Switches</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Brocade	300, 7800	v7.4.2d - v7.4.2g	
	6505, 6510, 6520, 7840, DCX 8510	v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.1.2c, v8.1.2e, v8.2.0, and v8.2.1 are not supported.
	G610	v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.1.0, v8.1.2c, v8.1.2e, and v8.2.0 are not supported.
	G620, X6	v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.0.0, v8.1.0, v8.1.2c, v8.1.2e, v8.2.0, and v8.2.1 are not supported.
G630	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0, and v8.2.1 are not supported.	
Cisco	9148S, 9706	v6.2(25) - v6.2(31), v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9148T, 9396T	v8.3(1) - v8.3(2)	
	9250i	v6.2(25) - v6.2(31), v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9396S	v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9710	v6.2(29) - v6.2(31), v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	
	9718	v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2), v8.4(1) - v8.4(2a)	Cisco OS v8.3(1) is no longer supported on the 9718.
	9706 (32Gb), 9710 (32Gb) 9718 (32Gb)	v8.1(1) - v8.1(1b), v8.3(1) - v8.3(2) v8.1(1) - v8.1(1b), v8.2(1) - v8.2(2), v8.3(2)	Cisco OS v8.3(1) is no longer supported on the 9718.
<b>FCOE Switches (FCF mode)</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Cisco	Nexus 5672up, 5672up-2248pq	v7.3(1)N1(1)	
	UCS 6332-16UP	v4.0(1c), v4.0(4d)	



FCOE Storage Interface - VSP G1000 only			
<b>Converged Network Adapters (CNA)</b>			
Manufacturer	Models	Driver Versions	Notes
Emulex	OCe11102	v11.4.0.5	
	OCe14102	v11.4.1186.5-1	
QLogic	QLe8362	v8.07.00.56.06.0-k v8.07.00.56.12.3-k v9.00.00.00-k	
<b>FCOE Switches</b>			
Manufacturer	Models	Driver Versions	Notes
Cisco	9148S, 9706 (FCoE)	v6.2(29) - v6.2(31), v8.4(1) - v8.4(2a)	
	9710, 9718 (FCoE)	v8.4(1) - v8.4(2a)	
	Nexus 5672up, 5672up-2248pq	v7.3(1)N1(1)	
<b>10 Gbps iSCSI Storage Interface</b>			
<b>iSCSI Adapters</b>			
Manufacturer	Models	Driver Versions	Notes
Any	10 GbE NIC	Bundled	
Emulex	OCe11102	v11.2.1.0	
QLogic	QLe8362	v5.04.00-k6	
<b>iSCSI Switches</b>			
Manufacturer	Models	Firmware Versions	Notes
Any	Generic 10GigE Switch	Any 10GigE FW	

**VSP G1x00, F1500, Gxx0, Fxx0, HUS VM support for SLES 12 SP2 (X64)**  
**SLES 12 SP2 is EOSL. Extended support ends 3/31/21.**

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 1240, 1280, 1285	v1.6.0.34	Must connect to a Cisco UCS or UCS Mini top of rack interconnect switch.
	UCS 1340, 1380	v1.6.0.34	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205	v11.1.0.1	
	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v11.1.0.1	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v11.1.0.1	
HPE	3820C	v2.11.9	
	451871-B21	v8.07.00.33-k	
	QMH2562	v8.07.00.34.12.0-k1	
	651281-B21	v8.07.00.33-k	
	QMH2572	v8.07.00.34.12.0-k1	
	659818-B21, LPe1205A	v11.1.0.1	
	710608-B21	v8.07.00.33-k	
	QMH2672	v8.07.00.34.12.0-k1	
	AJ763A, AJ763B, 82E	v11.1.0.1	
	AJ762A, AJ762B, 81E		
	AK344A, AJ764A, 81Q, 82Q	v8.07.00.33-k v8.07.00.34.12.0-k1	
	SN1000Q	v8.07.00.33-k v8.07.00.34.12.0-k1	
	SN1100Q	v8.07.00.33-k v8.07.00.34.12.0-k1	
	SN1100E	v11.1.0.1	
SN1600Q	v8.07.00.42.12.0-k4		
IBM	42D0485, 42D0494	v11.1.0.1	
	42D0501, 42D0510	v8.07.00.33-k	
Qlogic	QLE2560, QLE2562, QLE2564	v8.07.00.33-k v8.07.00.34.12.0-k1	
	QLE2660, QLE2662, QLE2670, QLE2672	v8.07.00.33-k v8.07.00.34.12.0-k1 v8.07.00.39.12.0-k	
	QLE2690, QLE2692, QLE2740, QLE2742, QLE2764	v8.07.00.33-k v8.07.00.34.12.0-k1 v8.07.00.42.12.0-k4	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 7800	v7.4.2d - v7.4.2g	
	6505, 6510, 6520, 7840, DCX 8510	v7.4.2d - v7.4.2g, v8.1.2a -v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.1.2c, and v8.1.2e are not supported.
	G610	v8.1.2a -v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.1.2c, and v8.1.2e are not supported.
	G620, X6	v8.1.2a -v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k, v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS 8.1.2c, and v8.1.2e are not supported.
	G630	v8.2.0a - v8.2.0b, v8.2.1a - v8.2.1e, v8.2.2 - v8.2.2d	Brocade FOS v8.2.0 is not supported.

Cisco	9606 (8Gb), 9513 (8Gb)	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1)	
	9132T	v8.2(1) - v8.2(2)	
	9148S, 9706	v6.2(17) - v6.2(29) - v6.2(31), v8.1(1) - v8.1(1b)	
	9250i	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1), v8.1(1) - v8.1(1b)	
	9396S	v6.2(17) - v6.2(29) - v6.2(31), v8.1(1) - v8.1(1b)	
	9710	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1), v7.3(0)DY(1), v8.1(1) - v8.1(1b)	
	9718	v7.3(0)D1(1) - v7.3(1)D1(1), v7.3(0)DY(1), v8.1(1) - v8.1(1b), v8.2(1) - v8.2(2)	
	9706 (32Gb), 9710 (32Gb), 9718 (32Gb)	v8.1(1) - v8.1(1b), v8.2(1) - v8.2(2)	

### FCOE Switches (FCF mode)

Manufacturer	Models	Firmware Versions	Notes
Cisco	UCS 6120XP, 6140XP, 6248up, 6296up	v3.1.2(b) - v3.1.2(e), v3.1.3(a)	
	Nexus 6001p-2248pq, 6001T, 6004	v7.3(0)N1(1) - v7.3(1)N1(1)	
	UCS 6324	v3.1.2(b) - v3.1.2(e), v3.1.3(a)	Cisco UCS Mini only

### FCOE Storage Interface - VSP G1000 only

#### Converged Network Adapters (CNA)

Manufacturer	Models	Driver Versions	Notes
Emulex	OCe11102	v11.1.0.1	
QLogic	QLe8362	v8.07.00.33-k	

#### FCOE Switches

Manufacturer	Models	Driver Versions	Notes
Brocade	G620, X6	v8.2.0a	
Cisco	Nexus 5672up, 5672up-2248pq	v7.3(0)N1(1)	

### 10 Gbps iSCSI Storage Interface

#### iSCSI Adapters

Manufacturer	Models	Driver Versions	Notes
Any	10 GbE NIC	Bundled	
Emulex	OCe11102	v11.0.0.0	
Intel	X520	v4.2.1-k	
QLogic	QLe8362	v5.04.00-k6	

#### iSCSI Switches

Manufacturer	Models	Firmware Versions	Notes
Any	Generic 10GigE Switch	Any 10GigE FW	
Cisco	Nexus 6001P, 6001p-2248pq, 6001T, 6004	v7.3(0)N1(1) - v7.3(1)N1(1)	

**VSP 5x00, G1x00, F1500, Gxx0, Fxx0, HUS VM support for SLES 11 SP4 (X64)**  
**SLES 11 SP4 is EOSL. Extended support ends 3/31/22.**

FC Storage Interface			
Host Bus Adapters (FC-HBA)/Converged Network Adapters (CNA)			
Manufacturer	Models	Driver Versions	Notes
Cisco	UCS 1225, 1225T, 1227, 1240, 1280, 1285	v1.6.0.25 v1.6.0.34	Must connect to a Cisco UCS or UCS Mini top of rack interconnect switch.
	UCS 1340, 1380	v1.6.0.25 v1.6.0.34	Must connect to a Cisco UCS top of rack interconnect switch.
Emulex	LPe12000, LPe12002, LPe1205	v10.4.8000.0	
	LPe16000, LPe16002, LPe16004, LPe16000B, LPe16002B	v10.4.8000.0	
	LPe31000, LPe31002, LPe31004, LPe32000, LPe32002, LPe32004	v11.0.240.0	
HPE	3530c	v11.1.183.21	
	3820C	v2.11.9	
	3830C	v8.07.00.34.11.3-k1	
	QMH2682		
	554M, 554FLB	v10.4.8000.0	
	650FLB, 650M	v10.4.8000.0	
	659818-B21, LPe1205A	v10.4.8000.0	
	AJ763A, AJ763B, 82E		
	AJ762A, AJ762B, 81E	v10.4.8000.0	
	AK344A, AJ764A, 81Q, 82Q	v8.07.00.18-k	
SN1100E	v10.4.8000.0		
IBM	42D0485, 42D0494	v10.4.8000.0	
	42D0501, 42D0510	v8.07.00.18-k	
Qlogic	QLE2560, QLE2562, QLE2564	v8.07.00.18-k	
	QLE2660, QLE2662, QLE2670, QLE2672	v8.07.00.18-k	
FC Switches			
Manufacturer	Models	Firmware Versions	Notes
Brocade	300, 7800	v7.4.2d - v7.4.2g	
	6505, 6510, 6520, 7840, DCX 8510	v7.4.2d - v7.4.2g, v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k	Brocade FOS v8.1.2c, and v8.1.2e are not supported.
	G610	v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k	Brocade FOS v8.1.0, v8.1.2c, and v8.1.2e are not supported.
	G620, X6	v8.1.2a - v8.1.2b, v8.1.2d, v8.1.2f - v8.1.2k	Brocade FOS v8.1.2c, and v8.1.2e are not supported.
Cisco	9606 (8Gb), 9513 (8Gb)	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1)	
	9148S, 9706	v6.2(17) - v6.2(29) - v6.2(31), v8.1(1) - v8.1(1b)	
	9250i	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1), v8.1(1) - v8.1(1b)	
	9396S	v6.2(17) - v6.2(29) - v6.2(31), v8.1(1) - v8.1(1b)	
	9710	v6.2(17) - v6.2(29) - v6.2(31), v7.3(0)D1(1) - v7.3(1)D1(1), v7.3(0)DY(1), v8.1(1) - v8.1(1b)	
	9718	v7.3(0)D1(1) - v7.3(1)D1(1), v7.3(0)DY(1), v8.1(1) - v8.1(1b), v8.2(1) - v8.2(2)	
	9706 (32Gb), 9710 (32Gb), 9718 (32Gb)	v8.1(1) - v8.1(1b), v8.2(1) - v8.2(2)	

<b>FCOE Switches (FCF mode)</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Cisco	UCS 6120XP, 6140XP, 6248up, 6296up	v3.1(1e) - v3.1(1l), v3.1.2(b) - v3.1.2(e), v3.1.3(a)	
	UCS 6324	v3.1(1e) - v3.1(1l), v3.1.2(b) - v3.1.2(e), v3.1.3(a)	Cisco UCS Mini only

## 10 Gbps iSCSI Storage Interface

<b>iSCSI Adapters</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Driver Versions</b>	<b>Notes</b>
Emulex	OCe11102	v10.4.114.0	
Intel	X520	v3.19.1-k	

<b>iSCSI Switches</b>			
<b>Manufacturer</b>	<b>Models</b>	<b>Firmware Versions</b>	<b>Notes</b>
Any	Generic 10GigE Switch	Any 10GigE FW	
Cisco	Nexus 5548p, 5548up, 5596up, 5596T	v7.3(3)N1(1)	
	Nexus 6001P, 6001p-2248pq, 6001T, 6004	v7.3(0)N1(1) - v7.3(1)N1(1)	