

# ThinkSystem QLogic QLE2740 Series 32Gb Fibre Channel Adapters

## Product Guide

The QLogic QLE2740 Series 32 Gb Fibre Channel (FC) Host Bus Adapters (HBAs) are Generation 6 (Gen 6) FC adapters for Lenovo ThinkSystem servers. These adapters offer industry leading native FC performance with extremely low CPU usage with full hardware offloads. With performance of up to 1.3 million I/O operations per second (IOPS), these adapters can be used to support all-flash arrays (AFAs) -- Fibre Channel storage systems comprised completely of high-speed solid-state drives.

Powerful management tools automate and simplify SAN provisioning to help reduce cost and complexity, while the unmatched 32 Gbps performance eliminates potential I/O bottlenecks in today's powerful multiprocessor, multicore servers.

The QLogic QLE2742 2-port 32 Gb Fibre Channel HBA is shown in the following figure.



Figure 1. ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter (shown without the included 32 Gb transceivers)

### Did you know?

The QLogic StorFusion architecture delivers ultimate reliability to meet the needs of mission-critical enterprise applications with lower power and fewer CPU cycles, all while maintaining peak performance. QLogic QConvergeConsole (QCC) provides unified, single-pane-of-glass management across generations of QLogic FC adapters.

## Part numbers

The following table lists the ordering information for the QLogic 32Gb Fibre Channel HBAs.

Table 1. Part numbers and feature codes

Part number	Feature code	Description
7ZT7A00516	AUNS	ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter
7ZT7A00518	AUNU	ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter

The part numbers for the QLogic 32Gb Fibre Channel HBAs include the following items:

- An FC HBA adapter with one or two 32 Gb FC SW SFP+ transceivers installed
- 3U (full height) and 2U (low-profile) adapter brackets
- Publications package

The QLogic QLE2740 1-port 32 Gb Fibre Channel HBA is shown in the following figure.

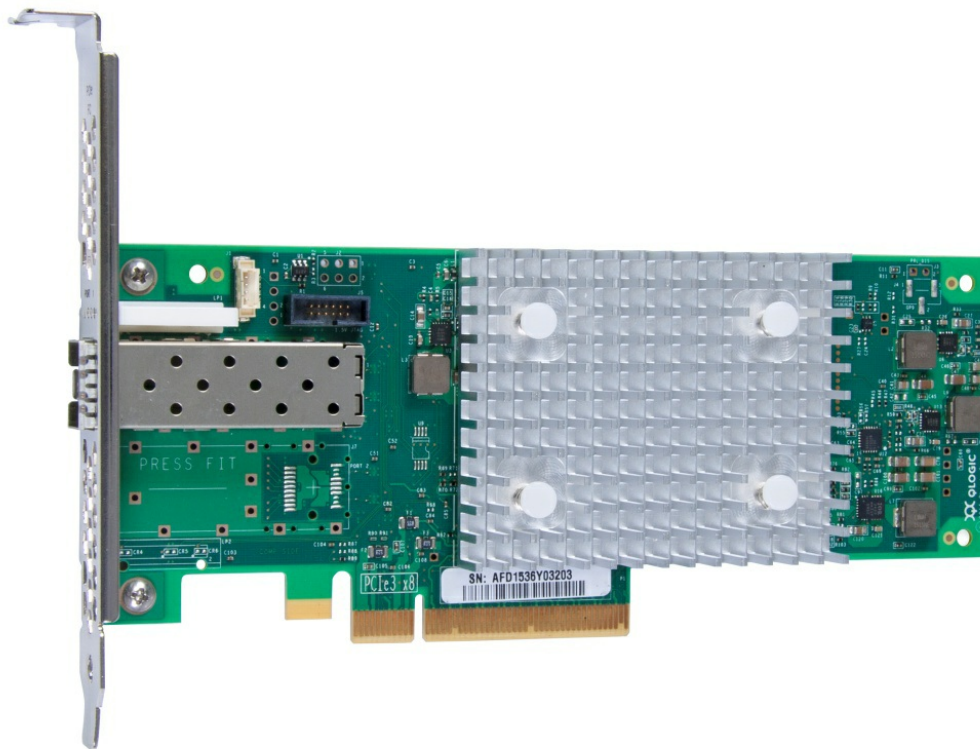


Figure 2. ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter (shown without the included 32 Gb transceiver)

## Fiber optic cables

The following table lists the fiber optic cables that are available from Lenovo.

Table 2. Fiber optic cables

Part number	Feature code	Description
LC-LC OM3 MMF Fiber Optic Cables		
00MN499	ASR5	Lenovo 0.5m LC-LC OM3 MMF Cable
00MN502	ASR6	Lenovo 1m LC-LC OM3 MMF Cable
00MN505	ASR7	Lenovo 3m LC-LC OM3 MMF Cable
00MN508	ASR8	Lenovo 5m LC-LC OM3 MMF Cable
00MN511	ASR9	Lenovo 10m LC-LC OM3 MMF Cable
00MN514	ASRA	Lenovo 15m LC-LC OM3 MMF Cable
00MN517	ASRB	Lenovo 25m LC-LC OM3 MMF Cable
00MN520	ASRC	Lenovo 30m LC-LC OM3 MMF Cable

## Key features

The QLogic QLE2740 Series 32Gb Fibre Channel HBAs have the following features:

- Maximum performance with up to 650K input/output operations per second (IOPS) per port (1.3 million IOPS in a dual-port adapter) to support larger server virtualization deployments and scalable cloud initiatives, and performance to match new multicore processors, SSDs/flash storage, and faster server host bus architectures.
- Independent function, transmit and receive buffers, an on-chip CPU, DMA channels, and a firmware image for each port enable complete port-level isolation, prevent errors and firmware crashes from propagating across all ports, and provide predictable and scalable performance across all ports.
- Support for NVMe over Fibre Channel (FC-NVMe). The adapters support low-latency access to scale out NVMe with full support for the FC-NVMe protocol. The adapters can simultaneously support FC-NVMe and FCP-SCSI storage traffic on the same physical port, enabling customers to migrate to NVMe at their own pace.
- Support forward error correction (FEC) to enhance reliability of transmission and thereby performance.
- Industry-standard class-specific control (CS\_CTL)-based frame prioritization Quality of Service (QoS) helps alleviate network congestion by prioritizing traffic for time-sensitive mission critical workloads for optimized performance.
- T10-PI data integrity with high performance offload provides end-to-end data corruption protection.
- Support for Message Signaled Interrupts eXtended (MSI-X) improves host utilization and enhances application performance.
- Fabric-assigned port worldwide name (FA-WWN) and fabric-based boot LUN discovery (F-BLD) pre-provisioning services allow servers to be quickly deployed, replaced, and moved across the SAN; the creation of zones, LUNs, and other services can be completed before the servers arrive on site.
- Using the Brocade ClearLink diagnostic port (D\_Port) available on the Brocade Gen 5 switches, administrators can quickly run automated diagnostic tests to assess the health of links and fabric components.
- Read diagnostic parameters (RDP) feature provides detailed port, media, and optics diagnostics to easily discover and diagnose link-related errors and degrading conditions on any N\_Port-to-F\_Port link.

- Link cable beacon (LCB) enables administrators to visually identify both ends of a physical link by flashing HBA's LEDs, simplifying identification of the connection peers within server racks without tracing the cable.
- Single-pane-of-glass management across generations of QLogic FC adapters with QLogic QConvergeConsole (QCC).
- Deployment flexibility and integration with third-party management tools, including the VMware vCenter and Brocade Network Advisor.
- Support for 32 Gb, 16 Gb and 8 Gb FC devices.
- Comprehensive virtualization capabilities with support for N\_Port ID Virtualization (NPIV).
- A common driver model allows a single driver to support all QLogic HBAs on a given OS.
- Reduce the number of cards, cables, and PCIe slots required.
- Exceptional performance per watt and price/performance ratios.
- Backward compatibility with existing 8Gb FC and 16Gb FC infrastructure, leveraging existing SAN investments.
- Allow application of SAN best practices, tools, and processes with virtual server deployments.
- Ensure data availability and data integrity.
- Boot from SAN capability reduces the system management costs and increases uptime.

The following table compares features of QLogic FC adapters available for ThinkSystem servers.

Table 3. QLogic 32 Gb and Enhanced 16 Gb FC HBAs feature comparison

Feature	32Gb FC	Enhanced 16 Gb FC
Part numbers	7ZT7A00516 7ZT7A00518	01CV750 01CV760
Host interface	PCIe 3.0 x8	PCIe 3.0 x8
IOPS performance (dual port)	1.3 M IOPS	1.3 M IOPS
SFP+ transceiver	32 Gb	16 Gb
32 Gbps speed support	Yes	No
16 Gbps speed support	Yes	Yes
8 Gbps speed support	Yes	Yes
4 Gbps speed support	No	Yes
ClearLink support	Yes	Yes
Concurrent logins	2,048	2,048
Active exchanges	2,048	2,048

## Technical specifications

The QLogic QLE2740 Series 32Gb Fibre Channel HBAs have the following specifications:

- Based on the QLogic QLE2740 (single port) and QLE2742 (dual port) adapters
- Host interface: PCIe 3.0 x8
- Ports: Single-port and dual-port SFP+ based adapters
- Link speed: Support for 32 Gb, 16 Gb and 8 Gb link speeds, which are automatically negotiated
- Data rate: 28.05 (3200 MBps), 14.025 Gbps (1600 MBps), and 8.5 Gbps (800 MBps) autosensing (per port), with full duplex

- Performance: Up to 1,300,000 IOPS (up to 650,000 IOPS per port)
- Fibre Channel standards: FC-PI-6, FC-PI-5, FC-GS-2, FC-GS-3, SCSI-FCP, FCP-2, FC-TAPE
- Topology: Point-to-point and switched fabric
- Hot-pluggable 32 Gbps Fibre Channel SFP+ short wave optical transceivers (850 nm) with LC connectors (included with the adapters). Note: Other transceivers are not supported.
- Distance support:
  - Operating at 32 Gbps:
    - Up to 20 m on 50/125  $\mu$ m OM2 Multi-Mode Fiber (MMF)
    - Up to 70 m on 50/125  $\mu$ m OM3 MMF
    - Up to 100 m on 50/125  $\mu$ m OM4 MMF
  - Operating at 16 Gbps:
    - Up to 35 m on 50/125  $\mu$ m OM2 Multi-Mode Fiber (MMF)
    - Up to 100 m on 50/125  $\mu$ m OM3 MMF
    - Up to 125 m on 50/125  $\mu$ m OM4 MMF
  - Operating at 8 Gbps:
    - Up to 21 m on 62.5/125  $\mu$ m OM1 MMF
    - Up to 50 m on 50/125  $\mu$ m OM2 MMF
    - Up to 150 m on 50/125  $\mu$ m OM3 MMF
    - Up to 190 m on 50/125  $\mu$ m OM4 MMF
- Management software:
  - The QLogic unified management application, QLogic QConvergeConsole (QCC), provides single-pane-of-glass management across generations of QLogic FC adapters.
  - QLogic supports all major APIs for deployment flexibility and integration with third-party management tools, including the VMware vCenter and Brocade Network Advisor.

## Server support

The following tables list the ThinkSystem servers that are compatible.

Table 4. Server support (Part 1 of 2)

Part Number	Description	E		2S Intel V2			AMD			Dense V2			4S V2	8S			
		SE350 (7Z46 / 7D1X)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
7ZT7A00516	ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	Y
7ZT7A00518	ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	Y

Table 5. Server support (Part 2 of 2)

Part Number	Description	1S Intel			2S Intel V1						Dense V1			4S V1					
		ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y51 / 7Y52)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X56)	SN550 (7X16)	SN850 (7X15)	SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)
7ZT7A00516	ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	Y
7ZT7A00518	ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	Y

## Operating system support

The following tables list the supported operating systems for each part number:

- [ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter, 7ZT7A00516](#)
- [ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter, 7ZT7A00518](#)

**Tip:** These tables are automatically generated based on data from [Lenovo ServerProven](#).

Table 6. Operating system support for ThinkSystem QLogic QLE2740 PCIe 32Gb 1-Port SFP+ Fibre Channel Adapter, 7ZT7A00516

Operating systems	SR635	SR655	SD530 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	SD530 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server version 1709	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>
Red Hat Enterprise Linux 7.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Operating systems	SR635	SR655	SD530 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	SD530 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)
SUSE Linux Enterprise Server 15 SP2	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>
SUSE Linux Enterprise Server 15 SP2 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y <sup>4</sup>	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	Y	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>
VMware vSphere Hypervisor (ESXi) 7.0 U1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

<sup>1</sup> The QLogic QLE2740/QLE2742 PCIe 32Gb HBA no support the SLES15.2 OS with DE/DM Series. For this config still under Lenovo testing, and will release once it complete validation. Please visit Lenovo Storage Interoperation Center (LSIC) for interop record serch: <https://datacentersupport.lenovo.com/tw/en/lisic>

<sup>2</sup> Need out of box driver to support NPIV feature

<sup>3</sup> Qlogic 2740, 2742 FC HBAs need to disable NVMe parameter when install the RHEL7.7 OS with DE series. Please refere latest DE series interop matrix, download link as below: <https://datacentersupport.lenovo.com/tw/en/products/storage/lenovo-storage/thinksystem-de6000h/7y80/documentation/userguide>

<sup>4</sup> The WWPN show wrong when created by excute FC-NPIV test under VM6.5.2 os.

Table 7. Operating system support for ThinkSystem QLogic QLE2742 PCIe 32Gb 2-Port SFP+ Fibre Channel Adapter, 7ZT7A00518

Operating systems	SR635	SR655	SD530 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	SD530 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server version 1709	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y



Operating systems	SR635	SR655	SD530 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	SD530 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>
Red Hat Enterprise Linux 7.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP2	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>	Y <sup>1</sup>
SUSE Linux Enterprise Server 15 SP2 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y <sup>4</sup>	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Operating systems	SR635	SR655	SD530 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	SD530 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	Y	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>	Y <sup>2</sup>
VMware vSphere Hypervisor (ESXi) 7.0 U1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

<sup>1</sup> The QLogic QLE2740/QLE2742 PCIe 32Gb HBA no support the SLES15.2 OS with DE/DM Series. For this config still under Lenovo testing, and will release once it complete validation. Please visit Lenovo Storage Interoperation Center (LSIC) for interop record serch: <https://datacentersupport.lenovo.com/tw/en/lisic>

<sup>2</sup> Need out of box driver to support NPIV feature

<sup>3</sup> Qlogic 2740, 2742 FC HBAs need to disable NVMe parameter when install the RHEL7.7 OS with DE series. Please refere latest DE series interop matrix, download link as below: <https://datacentersupport.lenovo.com/tw/en/products/storage/lenovo-storage/thinksystem-de6000h/7y80/documentation/userguide>

<sup>4</sup> The WWPN show wrong when created by excute FC-NPIV test under VM6.5.2 os.

## SAN switches

Lenovo offers the ThinkSystem DB Series of Fibre Channel SAN switches and directors for high-performance storage expansion. See the DB Series product guides for models and configuration options:

- ThinkSystem DB Series SAN Switches and Directors: <https://lenovopress.com/storage/switches/rack#rt=product-guide>

## Warranty

The adapters carry a one-year limited warranty. When installed in a supported server, the adapters assume the servers's base warranty and any Lenovo Services warranty upgrade.

## Physical specifications

The adapters have the following dimensions (approximate):

- Low profile form factor card
- 168 mm x 69 mm (6.60 in. x 2.7 in.)
- Standard (3U) and low-profile (2U) brackets included

## Operating environment

The adapters are supported in the following environment:

- Temperature:
  - Operating: 0 - 55 °C (32 - 131 °F)
  - Storage: -20 - 70 °C (-4 - 185 °F)

- Relative humidity:
  - Operating: 10 - 90% (non-condensing)
  - Storage: 5 - 95% (non-condensing)

## Agency approvals

The adapters conform to the following regulations:

- AS/NZS CISPR22:2009+A1, Class A
- CSA 22.2, No. 60950-1-07 (2nd Edition)
- EN55022:2010, Class A
- EN55024:2010
- EU (CE Mark)
- FCC Rules, Part 15, Class A
- Industry Canada, ICES-003, Class A
- Japan VCCI, Class A
- Korea KC-RRA, Class A
- TUV EN60950-1:2006+A11+A1+A12 (2nd Edition)
- Taiwan BSMI, Class A
- UL60950-1 (2nd Edition)

## Related publications and links

For more information, see the following resources:

- Lenovo ThinkSystem networking options product web page  
<https://lenovopress.com/lp0765-networking-options-for-thinksystem-servers>
- Lenovo support  
<http://datacentersupport.lenovo.com>
- Lenovo ServerProven  
<http://www.lenovo.com/us/en/serverproven>
- Marvell home page for Lenovo products  
<https://www.marvell.com/lenovo>

## Related product families

Product families related to this document are the following:

- [Host Bus Adapters](#)

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