

ThinkSystem M.2 Drives and M.2 Adapters

Product Guide

M.2 is a solid-state drive (SSD) form factor primarily used as an operating system boot solution. Lenovo ThinkSystem servers support M.2 drives either with the addition of a supported M.2 adapter or directly on the system board.

On the ThinkSystem SR150, SR250 and ST250, a single M.2 drive is installed directly on the system board.

On all other support ThinkSystem servers, the M.2 drives install into an M.2 adapter which in turn is installed in a dedicated slot on the system board of the server. With two M.2 drives configured, the drives are configured by default as a RAID-1 mirrored pair for redundancy.

There are two M.2 adapters supported:

- Single M.2 Adapter, which supports one M.2 drive; available as the ThinkSystem M.2 Enablement Kit
- Dual M.2 Adapter, which supports one or two M.2 drives; available as the ThinkSystem M.2 with Mirroring Enablement Kit

Tip: The M.2 adapters are also referred to as enablement kits. In the product publications, they are referred to as M.2 backplanes. These terms are interchangeable.

A Dual M.2 Adapter with one 128GB M.2 drive partially inserted is shown in the following figure. The second M.2 drive is installed on the other side of the adapter.



Figure 1. Dual M.2 Adapter and a 128 GB M.2 drive

Did you know?

The Dual M.2 Adapter features a Lenovo patented design that provides a tool-less method for attaching back-to-back M.2 modules to the adapter.

The Dual M.2 Adapter also includes a built-in RAID controller and allows two installed M.2 drives to be configured either as RAID-1, RAID-0, or two independent drives (JBOD mode).

Part number information

The following table lists the ThinkSystem part numbers.

Table 1. M.2 components

Part number	Feature code	Description	Maximum Supported
M.2 adapters			
7Y37A01092	AUMU	ThinkSystem M.2 Enablement Kit (contains the Single M.2 Adapter; supports 1 drive)	1
7Y37A01093	AUMV	ThinkSystem M.2 with Mirroring Enablement Kit (contains the Dual M.2 Adapter, supports 1 or 2 drives)	1
M.2 drives			
7N47A00129	AUUL	ThinkSystem M.2 CV1 32GB SATA 6Gbps Non-Hot-Swap SSD	1 / 2*
7N47A00130	AUUV	ThinkSystem M.2 CV3 128GB SATA 6Gbps Non-Hot-Swap SSD	1 / 2*
4XB7A14049	B5S4	ThinkSystem M.2 5100 240GB SATA 6Gbps Non-Hot Swap SSD	1 / 2*
7SD7A05703	B11V	ThinkSystem M.2 5100 480GB SATA 6Gbps Non-Hot-Swap SSD	1 / 2*
M.2 thermal kit			
4XH7A08791	B31F	ThinkSystem M.2 480GB SSD Thermal Kit (contains an air baffle required by some server configurations)	1

* 7Y37A01092 supports a maximum of one M.2 drive; 7Y37A01093 supports a maximum of two M.2 drives; drives must be identical.

The Single M.2 Adapter is shown in the following photo, with the 32GB M.2 drive installed.



Figure 2. Single M.2 Adapter and a 32 GB M.2 drive

Features

Features of the ThinkSystem M.2 solution:

- Hardened boot media that does not use a drive bay
- Both mechanically & electronically designed to be more robust than any prior implementation
- Design provides hardware mirroring of two M.2 SSDs
- M.2 SSDs have higher mean time between failures (MTBF) than SD cards or USB keys
- Tool-less, patented clip design that supports back to back connector layout, providing simple install in limited space.

Features of the Dual M.2 Adapter:

- PCIe 2.0 x2 host interface (connects to the PCH)
- Based on the Marvell 88SE9230 6 Gbps SATA controller
- Supports one or two 6 Gbps SATA M.2 drives**
- Supports 3 different physical sizes of M.2 drives: 42mm (2242), 60mm (2260) and 80mm (2280)*
- RAID functionality provided by the M.2 adapter
- RAID 1 by default; also supports RAID 0 and JBOD
- UEFI-based settings to enable/disable RAID mode and to review inventory
- Supports Secure Boot
- Adapter and drive firmware update using Lenovo firmware tools
- Management via I2C interface

Features of the Single M.2 Adapter:

- 6 Gbps SATA host interface (connects to the PCH)
- Supports one 6 Gbps SATA M.2 drive**
- Supports 3 different physical sizes of M.2 drives: 42mm (2242), 60mm (2260) and 80mm (2280)*
- Drive firmware update using Lenovo firmware tools
- Management via I2C interface
- VPD reporting of adapter inventory

* 2242, 2260 and 2280 are the industry terms for the M.2 drive dimensions. For example, 2280 corresponds to a drive that is 22mm wide and 80mm long.

** When using configure-to-order (CTO), you can also select zero drives and add drives as a field upgrade.

Technical specifications of the drives

The following table lists the specifications of the M.2 drives.

Table 2. M.2 drive specifications

Specification	32 GB M.2	128 GB M.2	240 GB M.2	480 GB M.2
Part number	7N47A00129	7N47A00130	4XB7A14049	7SD7A05703
Best suited for	Boot drive*	Boot drive*	Boot drive Read-intensive applications	Boot drive Read-intensive applications
Interface	6Gb SATA	6Gb SATA	6Gb SATA	6Gb SATA
Flash Type	MLC NAND	TLC NAND	3D TLC NAND	3D TLC NAND
Endurance - total bytes written	37.92TB	63.9 TB	650 TB	1300 TB
Endurance - drive writes per day	0.66 DWPD	0.28 DWPD	1.5 DWPD	1.5 DWPD
4KB random read performance	25,000 IOPS	72,000 IOPS	78,000 IOPS	93,000
4KB random write performance	10,500 IOPS	32,000 IOPS	26,000 IOPS	43,000
Sequential read performance	260 MB/s	530 MB/s	540 MB/s	540 MB/s
Sequential write performance	40 MB/s	470 MB/s	250 MB/s	410 MB/s
Vendor model	LiteOn CV1	LiteOn CV3	Micron 5100 PRO	Micron 5100 PRO
Dimensions	22x 42 mm	22 x 80 mm	22 x 80 mm	22 x 80 mm

* These drive options do not have power-loss capacitors, which means they do not have protection against a potential loss of data when a write operation is underway just as a power outage occurs.

Server support

The following table lists the ThinkSystem servers that are compatible.

Table 3. ThinkSystem server support

Part number	Description	1S Rack & Tower				2S Rack & Tower								4S Rack			Dense/ Blade		
		ST150 (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 (7Y36/7Y37/7Y38)	SR850 (7X18/7X19)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)
7Y37A01092	ThinkSystem M.2 Enablement Kit	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y†	Y
7Y37A01093	ThinkSystem M.2 with Mirroring Enablement Kit	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7N47A00129	ThinkSystem M.2 CV1 32GB SATA 6Gbps Non-Hot Swap SSD	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
7N47A00130	ThinkSystem M.2 CV3 128GB SATA 6Gbps Non-Hot Swap SSD	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4XB7A14049	ThinkSystem M.2 5100 240GB SATA 6Gbps Non-Hot Swap SSD	N	Y§	Y§	Y§	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
7SD7A05703	ThinkSystem M.2 5100 480GB SATA 6Gbps Non-Hot Swap SSD	N	Y	Y	Y	Y	Y	Y*	Y	Y*	Y	Y*	N	Y	Y	Y	Y	N	Y
4XH7A08791	ThinkSystem M.2 480GB SSD Thermal Kit	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	N	N	N	N	N

† Support of the ThinkSystem M.2 Enablement Kit (7Y37A01092) in the SN550 is configure-to-order only. It cannot be installed in the SN550 as a field upgrade option.

§ Support planned for late 2Q/2019

* The use of the 480GB M.2 drive in the SR550, SR590 and SR650 may require that the M.2 480GB SSD Thermal Kit (4XH7A08791) also be installed. The thermal kit contains an air baffle that ensures proper cooling of the M.2 drive. See the [SR550](#), [SR590](#) and [SR650](#) product guides for specifics.

Operating system support

The adapters support the following operating systems:

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

Table 4. Operating system support for ThinkSystem M.2 Enablement Kit, 7Y37A01092 (Part 1 of 2)

Operating systems	SD530 (Xeon SP Gen 2)	SD650 (Xeon SP Gen 2)	SN550 (Xeon SP Gen 2)	SN850 (Xeon SP Gen 2)	SR530 (Xeon SP Gen 2)	SR550 (Xeon SP Gen 2)	SR570 (Xeon SP Gen 2)	SR590 (Xeon SP Gen 2)	SR630 (Xeon SP Gen 2)	SR650 (Xeon SP Gen 2)	SR850 (Xeon SP Gen 2)	SR860 (Xeon SP Gen 2)	SR950 (Xeon SP Gen 2)	ST550 (Xeon SP Gen 2)
For SD650 (M/T 7X58) OS support info. please refer to LeSI Best Recipe.	N	Y ¹	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	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	N	N	N	N	N
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.6	Y	N	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	N	N	N	N	N
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	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	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	N	N	N	N	N	N	N	N

¹ 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (Xeon SP Gen 2), M/T 7X58 (Xeon SP Gen 2). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This item shall be installed/removed by Lenovo support rep only.

Table 5. Operating system support for ThinkSystem M.2 Enablement Kit, 7Y37A01092 (Part 2 of 2)

Operating systems	SD530 (Xeon SP Gen 1)	SD650 (Xeon SP Gen 1)	SN850 (Xeon SP Gen 1)	SR530 (Xeon SP Gen 1)	SR550 (Xeon SP Gen 1)	SR570 (Xeon SP Gen 1)	SR590 (Xeon SP Gen 1)	SR630 (Xeon SP Gen 1)	SR650 (Xeon SP Gen 1)	SR670 (Xeon SP Gen 1)	SR850 (Xeon SP Gen 1)	SR860 (Xeon SP Gen 1)	SR950 (Xeon SP Gen 1)	ST550 (Xeon SP Gen 1)
For SD650 (M/T 7X58) OS support info. please refer to LeSI Best Recipe.	N	Y ¹	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1709	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1803	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	Y	N
Red Hat Enterprise Linux 6.10	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 6.9	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
Red Hat Enterprise Linux 7.4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

¹ 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (M/T 7X58).

2. For OS support matrix, pls refer to LeSI Best Recipe.

3. This Item shall be installed/removed by Lenovo support rep only.

Table 6. Operating system support for ThinkSystem M.2 with Mirroring Enablement Kit, 7Y37A01093 (Part 1 of 2)

Operating systems	SD530 (Xeon SP Gen 2)	SD650 (Xeon SP Gen 2)	SN550 (Xeon SP Gen 2)	SN850 (Xeon SP Gen 2)	SR530 (Xeon SP Gen 2)	SR550 (Xeon SP Gen 2)	SR570 (Xeon SP Gen 2)	SR590 (Xeon SP Gen 2)	SR630 (Xeon SP Gen 2)	SR650 (Xeon SP Gen 2)	SR850 (Xeon SP Gen 2)	SR860 (Xeon SP Gen 2)	SR950 (Xeon SP Gen 2)	ST550 (Xeon SP Gen 2)
For SD650 (M/T 7X58) OS support info. please refer to LeSI Best Recipe.	N	Y ¹	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	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	N	N	N	N	N
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.6	Y	N	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	N	N	N	N	N
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	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	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	N	N	N	N	N	N	N	N

¹ 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (Xeon SP Gen 2), M/T 7X58 (Xeon SP Gen 2). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This item shall be installed/removed by Lenovo support rep only.

Table 7. Operating system support for ThinkSystem M.2 with Mirroring Enablement Kit, 7Y37A01093 (Part 2 of 2)

Operating systems	SD530 (Xeon SP Gen 1)	SD650 (Xeon SP Gen 1)	SN550 (Xeon SP Gen 1)	SN850 (Xeon SP Gen 1)	SR530 (Xeon SP Gen 1)	SR550 (Xeon SP Gen 1)	SR570 (Xeon SP Gen 1)	SR590 (Xeon SP Gen 1)	SR630 (Xeon SP Gen 1)	SR650 (Xeon SP Gen 1)	SR670 (Xeon SP Gen 1)	SR850 (Xeon SP Gen 1)	SR860 (Xeon SP Gen 1)	SR950 (Xeon SP Gen 1)	ST550 (Xeon SP Gen 1)
For SD650 (M/T 7X58) OS support info. please refer to LeSI Best Recipe.	N	Y ¹	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1709	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1803	Y	N	Y	N	N	N	N	N	Y	Y	N	Y	Y	Y	N
Red Hat Enterprise Linux 6.10	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 6.9	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
Red Hat Enterprise Linux 7.4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

¹ 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (M/T 7X58).

2. For OS support matrix, pls refer to LeSI Best Recipe.

3. This Item shall be installed/removed by Lenovo support rep only.

Warranty

The M.2 drives and M.2 adapters carry a one-year, customer-replaceable unit (CRU) limited warranty. When the drives and adapters are installed in a supported server, these drives assume the server's base warranty and any warranty upgrades.

Solid State Memory cells have an intrinsic, finite number of program/erase cycles that each cell can incur. As a result, each solid state device has a maximum amount of program/erase cycles to which it can be subjected. The warranty for Lenovo solid state drives (SSDs) is limited to drives that have not reached the maximum guaranteed number of program/erase cycles, as documented in the Official Published Specifications for the SSD product. A drive that reaches this limit may fail to operate.

Physical specifications

M.2 drives have the following dimensions and weight:

- 2242 form factor drives: 22 mm x 42 mm, 5 g
- 2280 form factor drives: 22 mm x 80 mm, 10 g

M.2 adapters have the following dimensions and weight:

- Single M.2 Adapter: 117 mm x 30 mm, 17 g
- Dual M.2 Adapter: 117 mm x 30 mm, 18 g

Related publications and links

For more information, see these resources:

- Human Factors Engineer Tim Meserth shows the Lenovo M.2 offering:
<https://www.youtube.com/watch?v=ibtMAHihTPw&list=PLLQclfVNrqze7qYOrEMPsuHqs4JEHi0aG&index=5>
- Lenovo ThinkSystem product publications:
<http://thinksystem.lenovofiles.com/help/index.jsp>
 - Quick Start
 - Rack Installation Guide
 - Setup Guide
 - Hardware Maintenance Manual
 - Messages and Codes Reference
 - Memory Population Reference
- ServerProven hardware compatibility:
<http://www.lenovo.com/us/en/serverproven>

Related product families

Product families related to this document are the following:

- [Drives](#)

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