System x3755 M3
Product Guide (withdrawn product)

The System x3755 M3 is a four-socket AMD Opteron processor-based server that is optimized for outstanding density and cost. It provides flexibility and scalability while offering multiple levels of price/performance. With features such as high performance AMD Opteron 6300 series processors, up to 32 available DIMM sockets with up to 512 GB of memory , and robust I/O, the System x3755 M3 provides four-socket performance at an entry-level price.

The x3755 M3 is an ideal server for business workloads including database, virtualization, Java, and enterprise applications such as ERP. The increased processor density helps reduce networking complexity and cost for high-performance computing environments, and the available 32 TB of internal storage facilitates data-intensive applications like business intelligence.

Figure 1 shows the System x3755 M3.

Figure 1. The System x3755 M3

Did you know?

The System x3755 M3 fits into 2U of standard rack space, and it can be used as a very affordable dual-socket 2U rack platform with the ability to grow to four sockets in the same space, or as a very dense space-optimized and price/performance-optimized four-socket enterprise-class server for business critical corporate applications. High availability, manageability, and performance features include Chipkill memory, Memory Sparing, Light Path Diagnostics, Predictive Failure Analysis, TCP Offload Engine (TOE), and integrated baseboard management controller (iBMC) with activated built-in remote presence feature.

Locations of key components and connectors

Figure 2 shows the front of the server.

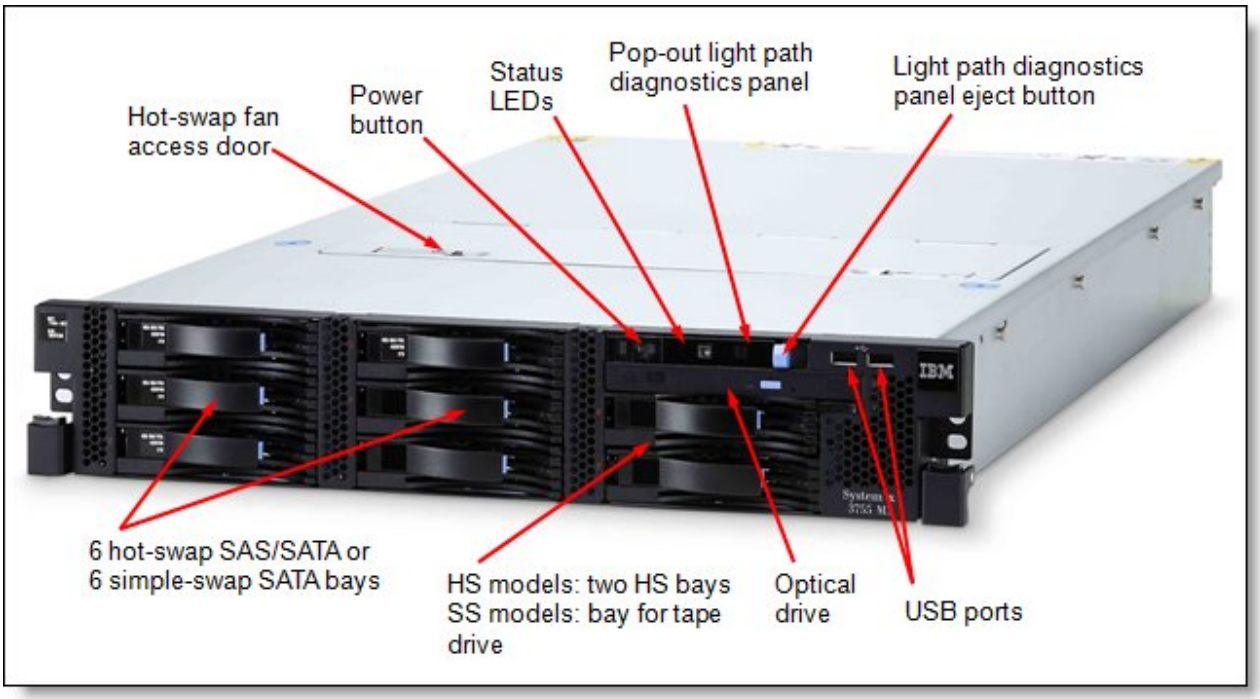

Figure 2. Front view of the System x3755 M3

Figure 3 shows the rear of the server.

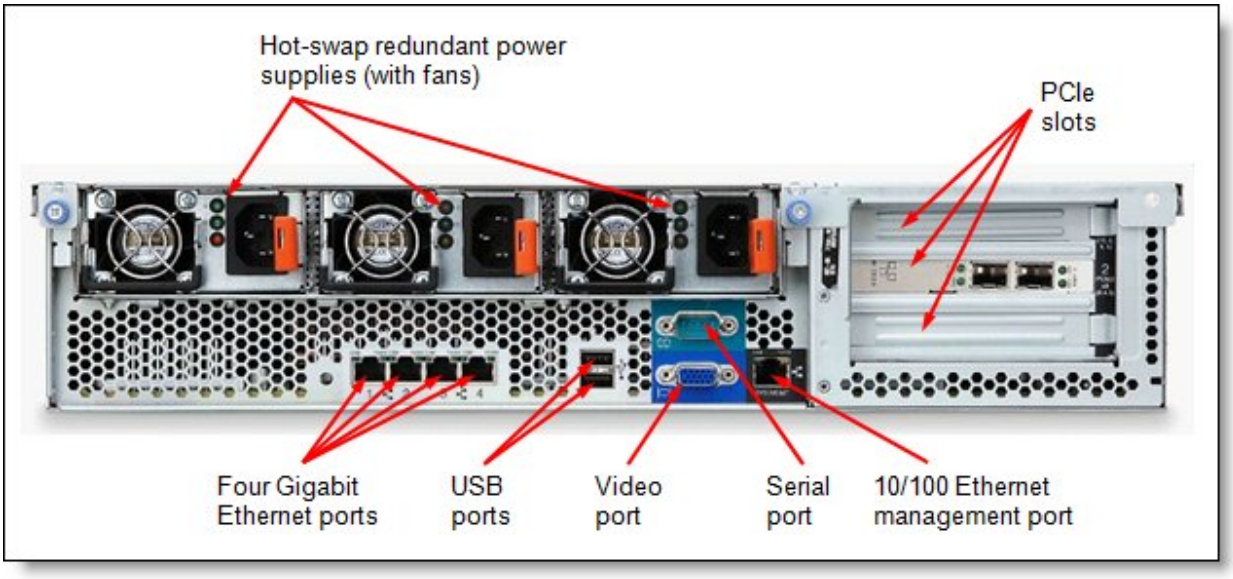

Figure 3. Rear view of the System x3755 M3

Figure 4 shows the locations of key components inside the server.

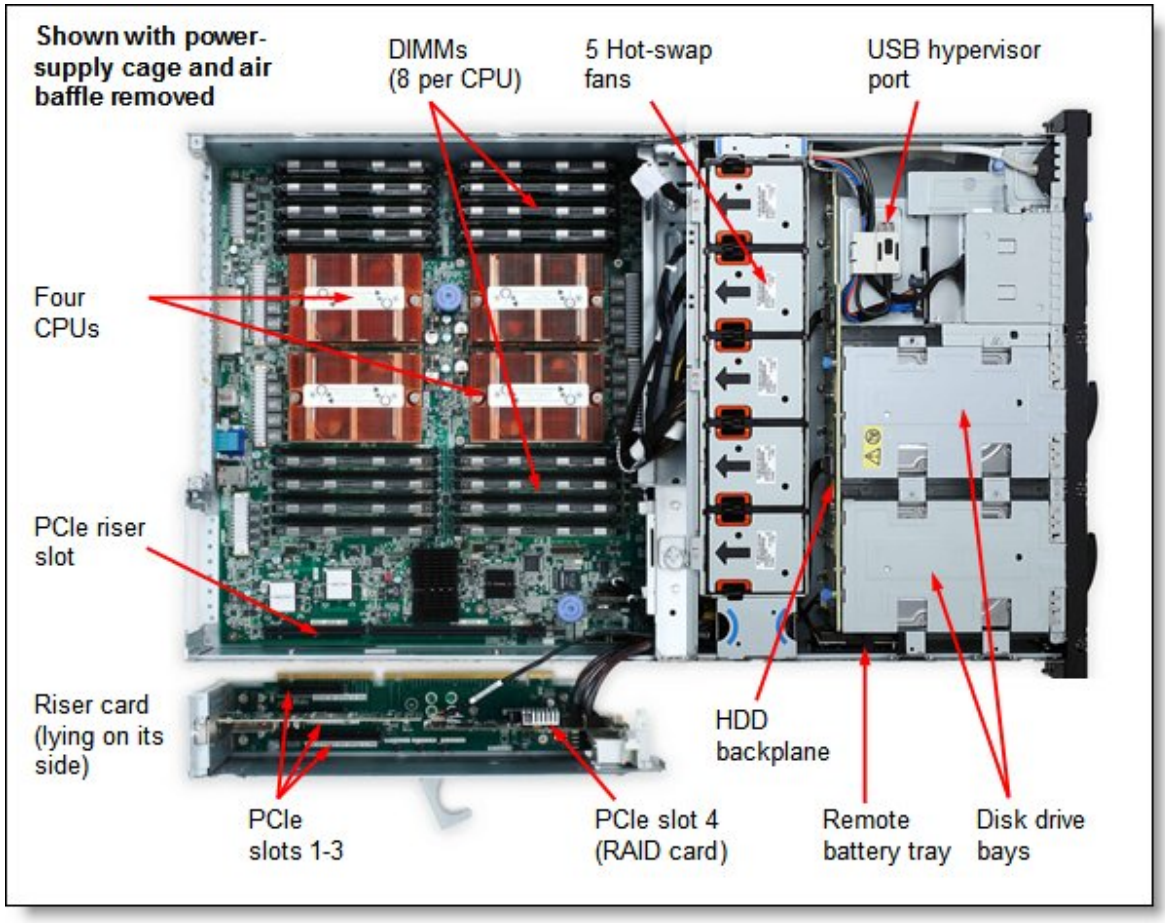

Figure 4. Inside view of the System x3755 M3 (shown with the power-supply cage and air baffle removed)

Standard specifications

The following table lists the standard specifications.

Table 1. Standard specifications

Component	Specification
Form factor	2U rack.
Processor	Up to four AMD Opteron processors. **Models with AMD Opteron 6300 processors**: Either 16 cores (up to 2.8 GHz) or 12 cores (up to 2.8 GHz) or 8 cores (up to 3.2 GHz) or 4 cores (3.5 GHz), HyperTransport 3 technology up to 6.4 GT/s, and up to 1600 MHz memory speed. **Models with AMD Opteron 6200 processors**: Either 16 cores (up to 2.5 GHz) or 12 cores (up to 2.6 GHz) or 8 cores (up to 3.0 GHz), HyperTransport 3 technology up to 6.4 GT/s, and up to 1333 MHz memory speed.
Memory cache	Up to 16 MB L3.
Chipset	Models with AMD Opteron 6300 processors: AMD SB5790 and SP5100 Models with AMD Opteron 6200 processors: AMD SR5690 and SP5100.
Memory sockets	Up to 32 DIMM sockets (eight DIMMs per processor). Four memory channels per processor, up to 2 DIMMs per channel

Component	Specification
Memory	Models with AMD Opteron 6300 processors: Supports RDIMMs only Models with AMD Opteron 6320 processors: Supports RDIMMs or UDIMMs. With RDIMMs: Up to 512 GB using 16 GB DDR3 RDIMMs and four processors With UDIMMs: Up to 128 GB with 4 GB DDR3 UDIMMs and four processors
Memory protection	ECC, Chipkill (for x4-based and x8-based memory DIMMs), and memory sparing.
Disk drive bays	Up to six 3.5" simple-swap (SS) SATA HDDs (CTO only), or up to eight 3.5" hot-swap (HS) SAS/SATA HDDs.
Maximum internal storage	Up to 32 TB with 4 TB 3.5" HS NL SATA or NL SAS HDDs Up to 4.8 TB with 600 GB 3.5" HS SAS HDDs Up to 18.0 TB with 3 TB 3.5" SS SATA HDDs (CTO only) Intermix of SAS/SATA is supported.
RAID support	RAID 0, 1, 5, 10, 50 with ServeRAID M5014 or M5015. RAID 0, 1, 1E with ServeRAID BR10ilv2 (CTO only) or ServeRAID M1015. Optional upgrade to RAID 6, 60 is available for M5014 and M5015. Optional upgrade to RAID 5 is available for M1015.
Optical drive bays	One with support for optional UltraSlim DVD-ROM or Multiburner.
Tape drive bays	None in standard models with hot-swap HDDs. One optional in CTO models with simple-swap HDDs.
Network interfaces	Four integrated Gigabit Ethernet ports (two dual-port Ethernet controllers). Broadcom BCM5709C chipset.
PCI Expansion slots	The server offers four PCI Express slots (one of them is reserved for the RAID controller): • Slot 1: PCIe 2.0 x16, full height, full length • Slot 2: PCIe 2.0 x8, low profile, half length • Slot 3: PCIe 2.0 x8 (x4 wired), low profile, half length • Slot 4: PCIe 2.0 x8, low profile, half length (internal only, reserved for RAID controller)
External ports	Two USB 2.0 on front. Two USB 2.0, one DB-15 video, one DB-9 serial, one RJ-45 systems management, four RJ-45 network ports on rear. One internal USB port for embedded hypervisor.
Cooling	Five hot swap fans with N+1 redundancy (standard models) or five non-hot swap non-redundant fans (only available via CTO).
Power supply	Up to three redundant hot-swap 1100 W AC power supplies with N+N or N+1 redundancy depending on the configuration.
Hot-swap components	Hard drives, power supplies, fans.
Systems management	UEFI, Integrated Baseboard Management Controller (iBMC) with standard remote presence (graphics, keyboard and mouse, virtual media), Predictive Failure Analysis, Light Path Diagnostics, Automatic Server Restart, IBM Systems Director versions 6.2.1 and 6.3, and Lenovo ServerGuide.
Security features	Power-on password, administrator's password, Trusted Platform Module (TPM).
Video	Aspeed AST2050 with 8 MB memory integrated into iBMC. Maximum resolution is 1280x1024 at 100 Hz with 64 K colors.
Operating systems supported	Microsoft Windows Server 2008 R2 and 2008, Red Hat Enterprise Linux 5 and 6, SUSE Linux Enterprise Server 10 and 11, VMware ESX 4.0 and 4.1, VMware ESXi 4.0 and 4.1 and vSphere 5 embedded hypervisor. See the Supported operating systems section for specifics.
Limited warranty	Three-year customer-replaceable unit and onsite limited warranty with 9x5/next-business-day response time.
Service and support	Optional service upgrades are available through ServicePacs®: 4-hour or 2-hour response time, 8-hour fix time, 1-year or 2-year warranty extension, remote technical support for hardware and selected and original equipment manufacturer (OEM) software.

Component	Specification
Dimensions	Width: 446 mm (17.6 in), depth: 728 mm (28.6 in), height: 87 mm (3.4 in)
Weight	Minimum configuration: 22 kg (48.6 lb), Maximum configuration: 33 kg (72.7 lb)

The x3755 M3 servers are shipped with the following items:

- Statement of Limited Warranty
- Important Notices
- Rack Installation Instructions
- Documentation CD that contains the *Installation and User's Guide*
- Environmental Notices CD
- IBM Systems Director 6.2 Base for x86 DVD-ROM
- Rail Kit
- Cable Management Arm (CMA)
- 2.8 m, 10A/100-250 V, C13 to IEC 320-C14 rack power cable (one for models with one power supply and two for models with two power supplies)

Standard models

The following table lists the standard models.

Table 2. Standard models

Model	AMD processor* (4 maximum)	Memory	RAID	Disk bays (std/max)	Disks	GbE	Optical	Power supply (std/max)
Models with AMD Opteron 6300 series processors								
7164-F3x	2x AMD Opteron 6380 16C 2.5 GHz 16MB 115W	4x 8 GB	M5015 +Battery	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3
Models with AMD Opteron 6200 series processors								
7164-A2x	4x AMD Opteron 6282SE 16C 2.6 GHz 16 MB 140W	8x 4 GB	M5015 +Battery	8x 3.5" HS / 8	Open	4x GbE	Optional	2x 1100W HS / 3
7164-B2x	4x AMD Opteron 6276 16C 2.3 GHz 16 MB 115W	8x 4 GB	M5015 +Battery	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3
7164-D2x	4x AMD Opteron 6272 16C 2.1 GHz 16 MB 115W	8x 4 GB	M1015	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3
7164-G2x	4x AMD Opteron 6234 12C 2.4 GHz 16 MB 115W	8x 4 GB	M1015	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3
7164-J2x	4x AMD Opteron 6220 8C 3.0 GHz 16 MB 115W	8x 4 GB	M1015	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3
7164-L2x	4x AMD Opteron 6262HE 16C 1.6 GHz 16 MB 85W	8x 4 GB	M1015	8x 3.5" HS / 8	Open	4x GbE	Optional	1x 1100W HS / 3

* Processor detail: Quantity, model, number of cores, core speed, L3 cache, power rating

Refer to the Specifications section for information about standard features of the server.

Processor options

The server supports the processor options listed in the following table. The server supports up to four processors. The following table shows which server models have each processor standard. If there is no corresponding *where-used* model for a particular processor, then this processor is only available through CTO.

Table 3. Processor options

Part number	Feature codes*	Description†	Maximum mem speed	Models where used
AMD Opteron 6300 series processors				
00AM131	A4MW / A4N6	AMD Opteron 6308 4C 3.5 GHz 16MB 115W	1600 MHz	-
00AM130	A4MV / A4N5	AMD Opteron 6320 8C 2.8 GHz 16MB 115W	1600 MHz	-
00AM129	A4MU / A4N4	AMD Opteron 6328 8C 3.2 GHz 16MB 115W	1600 MHz	-
00AM128	A4MT / A4N3	AMD Opteron 6344 12C 2.6 GHz 16MB 115W	1600 MHz	-
00AM127	A4MS / A4N2	AMD Opteron 6348 12C 2.8 GHz 16MB 115W	1600 MHz	-
00AM132	A4MX / A4N7	AMD Opteron 6366HE 16C 1.8 GHz 16MB 85W	1600 MHz	-
00AM126	A4MR / A4N1	AMD Opteron 6376 16C 2.3 GHz 16MB 115W	1600 MHz	-
00AM125	A4MQ / A4N0	AMD Opteron 6378 16C 2.4 GHz 16MB 115W	1600 MHz	-
00AM123	A4MN / A4MY	AMD Opteron 6380 16C 2.5 GHz 16MB 115W	1600 MHz	F3x
00AM124	A4MP / A4MZ	AMD Opteron 6386SE 16C 2.8 GHz 16MB 140W	1600 MHz	-
AMD Opteron 6200 series processors				
90Y5355	A1T8 / A1TZ	AMD Opteron 6212 8C 2.6 GHz 16MB 115W	1333 MHz	-
90Y5358	A1TB / A1U2	AMD Opteron 6220 8C 3.0 GHz 16MB 115W	1333 MHz	J2x
90Y5357	A1TA / A1U1	AMD Opteron 6234 12C 2.4 GHz 16MB 115W	1333 MHz	G2x
90Y5356	A1T9 / A1U0	AMD Opteron 6238 12C 2.6 GHz 16MB 115W	1333 MHz	-
90Y5359	A1TC / A1U3	AMD Opteron 6262HE 16C 1.6 GHz 16MB 85W	1333 MHz	L2x
90Y5354	A1T7 / A1TY	AMD Opteron 6272 16C 2.1 GHz 16MB 115W	1333 MHz	D2x
90Y5353	A1T6 / A1TX	AMD Opteron 6274 16C 2.2 GHz 16MB 115W	1333 MHz	-
90Y5352	A1T5 / A1TW	AMD Opteron 6276 16C 2.3 GHz 16MB 115W	1333 MHz	B2x
90Y5351	A1T4 / A1TV	AMD Opteron 6282SE 16C 2.6 GHz 16MB 140W	1333 MHz	A2x

* The first feature code is for the first two processors; the second feature code is for the third and fourth processors
† Processor detail: Processor model, number of cores, core speed, L3 cache, and power consumption.

Memory options

Lenovo DDR3 memory is compatibility tested and tuned for optimal System x performance and throughput. DDR3 memory specifications are integrated into the light path diagnostics for immediate system performance feedback and optimum system uptime. From a service and support standpoint, Lenovo memory automatically assumes the system warranty, and provides service and support worldwide.

The following tables lists memory options available for the x3755 M3 server.

Table 4. Memory options for systems with AMD Opteron 6300 processors

Part number	Feature code	Description	Maximum supported	Models where used
RDIMMs				
46W0779	A4Z5	16GB (1x16GB, 2Rx4, 1.5V) PC3-14900 CL13 ECC DDR3 1866MHz LP RDIMM	32	-
46W0771	A4RC	8GB (1x8GB, 1Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP RDIMM	32	F3x

Table 5. Memory options for systems with AMD Opteron 6200 processors

Part number	Feature code	Description	Maximum supported	Models where used
UDIMMs				
49Y1404	8648	4GB (1x4GB, 2Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP UDIMM	32	-
RDIMMs				
49Y1400	8939	16GB (1x16GB, 4Rx4, 1.35V) PC3L-8500 CL7 ECC DDR3 1066MHz LP RDIMM	32	-
46C7449	8937	8GB (1x8GB, 2Rx4, 1.5V) PC3-10600 CL9 ECC DDR3 1333MHz LP RDIMM	32	-
49Y1435	8936	4GB (1x4GB, 2Rx4, 1.5V) PC3-10600 CL9 ECC DDR3 1333MHz LP RDIMM	32	22x, 32x, 42x, 52x, 62x, 72x
49Y1406	8941	4GB (1x4GB, 1Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	32	J2x, G2x, L2x, D2x, B2x, A2x
49Y1405	8940	2GB (1x2GB, 1Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	32	-

The System x3755 M3 supports up to 16 DIMMs when two processors are installed and up to 32 DIMMs when four processors are installed. Each processor has four memory channels, and there are two DIMMs per channel.

The following rules apply when selecting the memory configuration:

- All configurations support RDIMMs
- Models with AMD Opteron 6200 processors also support UDIMMs
- Mixing different types of memory (UDIMMs and RDIMMs) is not supported.
- Mixing 1.5 V and 1.35 V DIMMs is supported, except in CTO configurations built in the factory. If 1.5 V and 1.35 V DIMMs are mixed, all DIMMs operate at 1.5 V
- Minimum of 2 DIMMs must be installed per processor
- The maximum quantity of DIMMs that can be installed in the server depends on the number of CPUs, DIMM type, rank, and operating voltage, as shown in the "Max. qty supported" row in the following table.
- All DIMMs in the server operate at the same speed, which is determined as the lowest value of:
    - Memory speed that is supported by the specific CPU.
    - Lowest of maximum operating speeds for selected memory configuration that depends on rated speed, operating voltage, and quantity of DIMMs per channel, as shown under "Maximum operating speed" section in the table.

The following two tables show the characteristics of the supported DIMMs. Table 6 is for models with AMD Opteron 6300 processors and Table 7 is for models with AMD Opteron 6200 processors. Tables cells highlighted with a gray background indicate when the combination of DIMM voltage and the number of DIMMs per channel still allows the DIMMs to operate at a rated speed.

The following memory protection technologies are supported:

- ECC
- ChipKill (for x4 and x8-based DIMMs)
- Memory sparing

Note: Memory Sparing is not supported with quad-rank DIMMs.

Table 5. Maximum memory speeds for systems with AMD Opteron 6300 processors

DIMM specification	**RDIMM**		
Rank	Single rank		Dual rank
Part numbers	46W0771 (8 GB)		46W0779 (16 GB)
Rated speed	1600 MHz		1866 MHz
Rated voltage	1.35 V		1.5 V
Operating voltage	1.35 V	1.5 V	1.5 V
Max qty supported*	32	32	32
Max DIMM capacity	8 GB	8 GB	16 GB
Max memory capacity	256 GB	256 GB	512 GB
Max. mem at rated speed	None	256 GB	None
Maximum operating speed			
1 DIMM per channel	1333 MHz	1600 MHz	1600 MHz
2 DIMMs per channel	1333 MHz	1600 MHz	1600 MHz

* The maximum quantity that is supported is shown for four processors installed.

Table 6. Maximum memory speeds for systems with AMD Opteron 6200 processors

DIMM specification	**UDIMM**		**RDIMM**				
Rank	Dual rank		Single rank		Dual rank	Quad rank	
Part numbers	49Y1404 (4 GB)		49Y1406 (4 GB) 49Y1405 (2 GB)		46C7449 (8 GB) 49Y1435 (4 GB)	49Y1400 (16 GB)	
Rated speed	1333 MHz		1333 MHz		1333 MHz	1066 MHz	
Rated voltage	1.35 V		1.35 V		1.5 V	1.35 V	
Operating voltage	1.35 V	1.5 V	1.35 V	1.5 V	1.5 V	1.35 V	1.5 V
Max qty supported*	32	32	32	32	32	32	32
Max DIMM capacity	4 GB	4 GB	4 GB	4 GB	8 GB	16 GB	16 GB
Max memory capacity	128 GB	128 GB	128 GB	128 GB	256 GB	512 GB	512 GB
Max. mem at rated speed	128 GB	128 GB	128 GB	128 GB	256 GB	256 GB	512 GB
Maximum operating speed							
1 DIMM per channel	1333 MHz	1333 MHz	1333 MHz	1333 MHz	1333 MHz	1066 MHz	1066 MHz
2 DIMMs per channel	1333 MHz	1333 MHz	1333 MHz	1333 MHz	1333 MHz	800 MHz	1066 MHz

* The maximum quantity that is supported is shown for four processors installed.

Internal storage

The System x3755 M3 server supports the following internal storage configurations:

- Six 3.5" Simple-Swap SATA drive bays (only available via CTO)
- Eight 3.5" Hot-Swap drive bays supporting SAS or SATA drives

Controllers for internal storage

The following table lists the RAID controllers and additional options used for internal disk storage of the x3755 M3 server.

Table 7. RAID controllers for internal storage

Part number	Description	Max quantity supported	Standard models where used
46M0831	ServeRAID M1015 SAS/SATA Controller	1	22x, 32x,42x, 62x, J2x, G2x, L2x, D2x
46M0832	ServeRAID M1000 Series Advance Feature Key	1	-
46M0916	ServeRAID M5014 SAS/SATA Controller	1	-
46M0829	ServeRAID M5015 SAS/SATA Controller	1	52x, 72x, B2x, A2x, F3x
46M0917	ServeRAID M5000 Series Battery Kit	1	52x, 72x, B2x, A2x
46M0930	ServeRAID M5000 Series Advance Feature Key	1	-
68Y7396	ServeRAID M5000 Series Battery Remote Mount Cable	1	-
49Y4731	ServeRAID-BR10il SAS/SATA Controller v2	1	-

The RAID controller is installed into dedicated PCI-E slot 4 (Figure 4). Simple Swap SATA models only support the ServeRAID BR10il v2 controller. The BR10il v2 supports up to four SS SATA HDDs, and the remaining two SATA HDDs can be used as standalone drives that are not part of a RAID array. Hot swap SAS/SATA models do not support ServeRAID BR10il v2.

If the ServeRAID M5014 or M5014 controller is specified with a battery, it can be used in the x3755 M3. However, the battery is installed separately on a remote battery tray and connected to the RAID controller via the ServeRAID M5000 Series Battery Remote Mount Cable, 68Y7396. Installing the battery remotely is done to avoid overheating. The remote battery tray is shipped standard with the server and is attached to the side of the chassis.

The ServeRAID BR10il v2 SAS/SATA Controller has the following specifications:

- One Mini-SAS internal connector
- Supports RAID levels 0, 1, and 1E
- 3 Gbps throughput per port
- Based on the LSI 1064E controller
- PCI Express 2.0 x4 host interface
- Stripe size: 64 KB (fixed)

The ServeRAID M1015 SAS/SATA Controller has the following specifications:

- Two Mini-SAS internal connectors
- Supports RAID levels 0, 1, and 10
- Supports RAID levels 5 and 50 with optional ServeRAID M1000 Series Advanced Feature Key
- 6 Gbps throughput per port
- Based on the LSI SAS2008 6 Gbps RAID on Chip (ROC) controller

- PCI Express 2.0 x8 host interface
- Configurable stripe size up to 64 KB

The ServeRAID M5014 SAS/SATA Controller has the following specifications:

- Two Mini-SAS internal connectors
- Supports RAID levels 0, 1, 5, 10, and 50
- Supports RAID 6 and 60 with the optional M5000 Advanced Feature Key
- 6 Gbps throughput per port
- PCI Express 2.0 x8 host interface
- Based on the LSI SAS2108 6 Gbps ROC controller
- 256 MB of onboard cache
- Optional Intelligent Li-Ion-based battery backup unit with the ServeRAID M5000 Series Battery Kit

The ServeRAID M5015 SAS/SATA Controller has the following specifications:

- Two Mini-SAS internal connectors
- Supports RAID levels 0, 1, 5, 10, and 50
- Supports RAID 6 and 60 with the optional M5000 Advanced Feature Key
- 6 Gbps throughput per port
- PCI Express 2.0 x8 host interface
- Based on the LSI SAS2108 6 Gbps ROC controller
- 512 MB of onboard cache
- Standard Intelligent Li-Ion-based battery backup unit with up to 48 hours of data retention

For more information, see the list of Product Guides in the RAID adapters category:
https://lenovopress.com/servers/options/raid

Internal drive options

The following table lists hard drive options for internal disk storage of the x3755 M3 server.

Table 8. Disk drive options for internal disk storage

Part number	Feature code	Description	Maximum supported
Hot-swap SAS drives			
44W2244	5313	600GB 15K 6Gbps SAS 3.5" Hot-Swap HDD	8
44W2239	5312	450GB 15K 6Gbps SAS 3.5" Hot-Swap HDD	8
44W2234	5311	300GB 15K 6Gbps SAS 3.5" Hot-Swap HDD	8
Hot-swap NL SAS drives			
49Y6205	A4AG	4TB 7.2K 6Gbps NL SAS 3.5" HS HDD	8
81Y9758	A281	3TB 7.2K 6Gbps NL SAS 3.5" HS HDD	8
42D0767	5417	2TB 7.2K 6Gbps NL SAS 3.5" HS HDD	8
42D0777	5418	1TB 7.2K 6Gbps NL SAS 3.5" HS HDD	8
Hot-swap NL SATA drives			
49Y6185	A3WB	4TB 7.2K 6Gbps NL SATA 3.5" HS HDD	8
81Y9774	A27Z	3TB 7.2K 6Gbps NL SATA 3.5" HS HDD	8
42D0782	5415	2TB 7200 NL SATA 3.5" HS HDD	8
Hot-swap SATA drives			
43W7626	5560	1TB 7200 SATA 3.5" HS HDD	8
39M4530	5196	500GB 7200 RPM 3.5" Hot-Swap SATA II	8
Simple swap drives			
81Y9778	A280	3TB 7.2K 6Gbps NL SATA 3.5" SS HDD	6
42D0787	5416	2TB 7200 NL SATA 3.5" SS HDD	6
43W7622	5559	1TB 7.2K SATA 3.5" Simple-Swap HDD	6
39M4514	5288	500GB 7200 RPM 3.5" Simple-Swap SATA II	6

Internal backup units

The x3755 M3 server with simple-swap drives can physically house an internal tape drive. However, the supported tape drive has been withdrawn from marketing. As a result the x3755 M3 cannot be configured with an internal tape drive.

Optical drives

The server supports the optical drive options listed in the following table.

Table 9. Optical drives

Part number	Feature code	Description	Maximum supported	Standard models where used
46M0901	4161	UltraSlim Enhanced SATA DVD-ROM	1	-
46M0902	4163	UltraSlim Enhanced SATA Multi-Burner	1	-

The UltraSlim Enhanced SATA DVD-ROM (part number 46M0901) supports the following media and speeds for reading:

- CD-ROM 24X
- CD-DA (DAE) 20X
- CD-R 24X
- CD-RW 24X
- DVD-ROM (single layer) 8X
- DVD-ROM (dual layer) 8X
- DVD-R (4.7 GB) 6X
- DVD-R DL 4X
- DVD+R 6X
- DVD+R DL 4X
- DVD-RW (4.7 GB) 4X
- DVD+RW 4X
- DVD-RAM (4.7/9.4 GB) 4X

The UltraSlim Enhanced SATA Multi-Burner (part number 46M0902) supports the same media and speeds for reading as DVD-ROM (46M0901). In addition, this drive supports the following media and speeds for writing:

- CD-R 24X
- CD-RW 4X
- High Speed CD-RW 10X
- Ultra Speed CD-RW 16X
- Ultra Speed Plus CD-RW 16X
- DVD-R 8X
- DVD-R DL 6X
- DVD+R 8X
- DVD+R DL 6X
- DVD-RW 6X
- DVD+RW 8X
- DVD-RAM 5X

I/O expansion options

The server offers four PCI Express slots (one of them is reserved for the RAID controller) that are located on a riser card. The slot form factors are:

- Slot 1: PCIe 2.0 x16, full height, full length
- Slot 2: PCIe 2.0 x8, low profile, half length
- Slot 3: PCIe 2.0 x8 (x4 wired), low profile, half length
- Slot 4: PCIe 2.0 x8, low profile, half length (internal only, reserved for RAID controller)

Figure 5 shows the location of the adapter slots on a riser card.

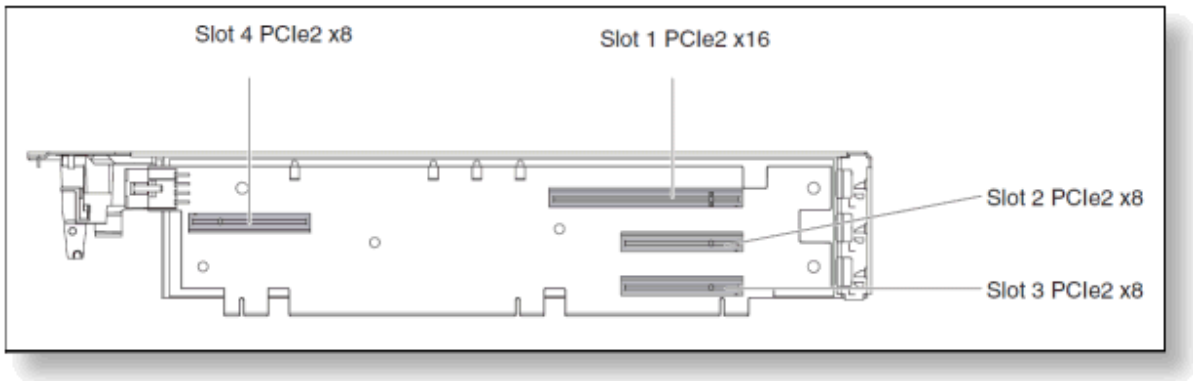

Figure 5. Adapter slots in the x3755 M3

Network adapters

The x3755 M3 supports two integrated dual-port Gigabit Ethernet controllers for a total of four onboard LAN ports.

Integrated NICs have the following features:

- Broadcom BCM5709C chip
- TCP Offload Engine (TOE) support
- Wake on LAN support
- 802.1Q VLAN tagging support
- NIC Teaming (load balancing and failover)

The following table lists additional supported network adapters.

Table 10. Network adapters

Part number	Feature code	Description	Maximum supported
40 Gb Ethernet adapters			
00D9550	A3PN	Mellanox ConnectX-3 40GbE / FDR IB VPI Adapter for System x	3
10 Gb Ethernet adapters			
49Y7910	A18Y	Broadcom NetXtreme II Dual Port 10GBaseT Adapter for System x	3
49Y4230	5767	Intel Ethernet Dual Port Server Adapter I340-T2 for System x	3
49Y7960	A2EC	Intel X520 Dual Port 10GbE SFP+ Adapter for System x	3
81Y3520	AS73	Intel X710 2x10GbE SFP+ Adapter for System x	3
81Y9990	A1M4	Mellanox ConnectX-2 Dual Port 10GbE Adapter for System x	3
00D9690	A3PM	Mellanox ConnectX-3 10 GbE Adapter for System x	3
42C1800	5751	QLogic 10Gb CNA for System x	3
1 Gb Ethernet adapters			
39Y6066	1485	Broadcom NetXtreme 1xGbE BaseT Adapter for System x	3
42C1780	2995	Broadcom NetXtreme 2xGbE BaseT Adapter for System x	3
90Y9370	A2V4	Broadcom NetXtreme I Dual Port GbE Adapter for System x	3
90Y9352	A2V3	Broadcom NetXtreme I Quad Port GbE Adapter for System x	3
42C1750	2975	PRO/1000 PF Server Adapter	3
39Y6126	2944	PRO/1000 PT Dual Port Server Adapter by Intel	3
InfiniBand adapters			
95Y3750	A2MY	Mellanox ConnectX-2 Dual-port QSFP QDR IB Adapter for System x	1

Storage host bus adapters

The following table lists storage HBAs supported by the x3755 M3 server.

Table 11. Storage adapters

Part number	Feature code	Description	Maximum supported
Fibre Channel - 16 Gb			
81Y1655	A2W5	Emulex 16Gb FC Single-port HBA for System x	3
81Y1662	A2W6	Emulex 16Gb FC Dual-port HBA for System x	3
81Y1668	A2XU	Brocade 16Gb FC Single-port HBA for System x	3
81Y1675	A2XV	Brocade 16Gb FC Dual-port HBA for System x	3
00Y3337	A3KW	QLogic 16Gb FC Single-port HBA for System x	3
00Y3341	A3KX	QLogic 16Gb FC Dual-port HBA for System x	3
Fibre Channel - 8 Gb			
46M6049	3589	Brocade 8Gb FC Single-port HBA for System x	3
46M6050	3591	Brocade 8Gb FC Dual-port HBA for System x	3
42D0485	3580	Emulex 8Gb FC Single-port HBA for System x	3
42D0494	3581	Emulex 8Gb FC Dual-port HBA for System x	3
42D0501	3578	QLogic 8Gb FC Single-port HBA for System x	3
42D0510	3579	QLogic 8Gb FC Dual-port HBA for System x	3
SAS			
46M0907	5982	6Gb SAS HBA	3

PCIe SSD adapters

The server does not support high IOPS SSD adapters.

Power supplies

The server supports up to three 1100-watt, hot-swap power supplies that support N+N or N+1 redundancy depending on the configuration:

- If only two or three processors are installed or four processors less than 140 W are installed, then one power supply is required and the second supply can be redundant if installed (N+N where N=1)
- If four 140W processors are installed, then two power supplies are required for a fully-populated server with no redundancy (or three power supplies can be installed with the third redundant N+1, where N=2)
- If four 140W processors are installed, only one power supply can be installed with no redundancy (or two power supplies can be installed with the second redundant, N+1 where N=1) provided these limits are met:
    - Maximum 16 DIMMs
    - Maxumum 4 disk drives

The server comes standard with one or two power supplies, depending on the model. The following table lists the power supplies.

Table 12. Power supplies

Part number	Feature code	Description	Maximum supported	Standard models where used
49Y7342	2593	1100W Redundant Power Supply	3	All

Each power supply ships standard with one 2.8 m, 10A/100-250 V, C13 to IEC 320-C14 Rack Power Cable.

Integrated virtualization

The server supports VMware ESXi installed on a USB memory key. The key is installed in a USB socket inside the server. The following tables lists the virtualization options.

Table 13. Virtualization options for systems with AMD Opteron 6300 processors

Part number	Feature code	Description	Maximum supported
41Y8298	A2G0	Blank USB Memory Key for VMware ESXi Downloads	1
41Y8311	A2R3	USB Memory Key for VMware ESXi 5.1	1

Table 15. Virtualization options for systems with AMD Opteron 6200 processors

Part number	Feature code	Description	Maximum supported
41Y8298	A2G0	Blank USB Memory Key for VMWware ESXi Downloads	1
41Y8385	A584	USB Memory Key for VMware ESXi 5.5	1
41Y8311	A2R3	USB Memory Key for VMware ESXi 5.1	1
41Y8307	A383	USB Memory Key for VMware ESXi 5.0 Update 1	1
41Y8300	A2VC	USB Memory Key for VMware ESXi 5.0	1
41Y8296	A1NP	USB Memory Key for VMware ESXi 4.1 Update 1	1
41Y8287	3033	USB Memory Key for VMware ESXi 4.1	1
41Y8278	1776	USB Memory Key for VMware ESXi 4	1

Remote management

The server contains second-generation Integrated Baseboard Management Controller (iBMC), which provides advanced service-processor control, monitoring, and an alerting function. If an environmental condition exceeds a threshold or if a system component fails, the iBMC lights LEDs to help you diagnose the problem, records the error in the event log, and alerts you to the problem. In addition, the iBMC also provides a virtual presence as a standard feature for remote server management capabilities.

The iBMC provides remote server management through industry-standard interfaces:

- Intelligent Platform Management Interface (IPMI) Version 2.0
- Simple Network Management Protocol (SNMP) Trap
- Web browser

The remote management feature provides the following functions:

- Remotely viewing video with graphics resolutions up to 1600 x 1200 at 75 Hz, regardless of the system state
- Remotely accessing the server using the keyboard and mouse from a remote client
- Mapping the CD or DVD drive, diskette drive, and USB flash drive on a remote client, and mapping ISO and diskette image files as virtual drives that are available for use by the server
- Uploading a diskette image to the iBMC memory and mapping it to the server as a virtual drive

The blue-screen capture feature captures the video display contents before the iBMC restarts the server when the iBMC detects an operating system hang condition. A system administrator can use the blue-screen capture feature to assist in determining the cause of the hang condition.

Supported operating systems

The following operating systems are supported on models with AMD Opteron 6300 processors:

- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008, Datacenter x64 Edition
- Microsoft Windows Server 2008, Enterprise x64 Edition
- Microsoft Windows Server 2008, Standard x64 Edition
- Microsoft Windows Server 2008, Web x64 Edition
- Red Hat Enterprise Linux 5 Server x64 Edition
- Red Hat Enterprise Linux 6 Server x64 Edition
- Red Hat Enterprise Linux 7
- SUSE LINUX Enterprise Server 11 for AMD64/EM64T
- SUSE LINUX Enterprise Server 11 with Xen for AMD64/EM64T
- SUSE Linux Enterprise Server 12
- SUSE Linux Enterprise Server 12 with XEN
- VMware vSphere 5.1 (ESXi)
- VMware vSphere 5.5 (ESXi)

The following operating systems are supported on models with AMD Opteron 6200 processors:

- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008, Datacenter x64 Edition
- Microsoft Windows Server 2008, Enterprise x64 Edition
- Microsoft Windows Server 2008, Standard x64 Edition
- Microsoft Windows Server 2008, Web x64 Edition
- Red Hat Enterprise Linux 5 Server with Xen x64 Edition
- Red Hat Enterprise Linux 5 Server x64 Edition
- Red Hat Enterprise Linux 6 Server x64 Edition
- SUSE LINUX Enterprise Server 10 for AMD64/EM64T
- SUSE LINUX Enterprise Server 11 for AMD64/EM64T
- SUSE LINUX Enterprise Server 11 with Xen for AMD64/EM64T
- VMware ESX 4.0
- VMware ESX 4.1
- VMware ESXi 4.0
- VMware ESXi 4.1
- VMware vSphere 5.0 (ESXi)
- VMware vSphere 5.1 (ESXi)
- VMware vSphere 5.5 (ESXi)

See the Lenovo Operating System Interoperability Guide for the latest information about the specific versions and service levels supported and any other prerequisites:
http://lenovopress.com/osig

Physical and electrical specifications

Dimensions and weight:

- Width: 446.0 mm (17.6 in)
- Depth: 727.5 mm (28.6 in)
- Height: 87.0 mm (3.4 in)
- Weight:
  - 22 kg (48.6 lb) (minimum configuration)
  - 33 kg (72.7 lb) (maximum configuration)

Supported environment:

- Air temperature
  - Server on: 10 - 35 °C (50 - 95 °F); altitude: 0 - 915 m (3,000 ft)
  - Server on: 10 - 32 °C (50 - 90 °F); altitude: 915 m (3,000 ft) - 2,134 m (7,000 ft)
  - Server off: 10 - 43 °C (50 - 109 °F)
- Humidity
  - Server on: 8 - 80%
  - Server off: 8 - 80%
- Electrical
  - 100 - 127 (nominal) V ac; 50 Hz or 60 Hz; 19.0 A
  - 200 - 240 (nominal) V ac; 50 Hz or 60 Hz; 11.6 A
  - Input kilovolt-amperes (kVA) (approximately):
    - Minimum configuration: 0.20 kVA
    - Maximum configuration: 2.17 kVA
- Btu output
  - Ship configuration: 648 Btu/hr (190 watts)
  - Full configuration: 6739 Btu/hr (2150 watts)
- Acoustical noise emission levels
  - 6.8 bels (idling)
  - 6.8 bels (operating)

Warranty options

The system has a three-year warranty with 24x7 standard call center support and 9x5 Next Business Day onsite coverage. Also available are Lenovo Services warranty maintenance upgrades and post-warranty maintenance agreements, with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.

Lenovo warranty service upgrade offerings are region-specific. Not all warranty service upgrades are available in every region. For more information about Lenovo warranty service upgrade offerings that are available in your region, go to the Data Center Advisor and Configurator website http://dcsc.lenovo.com, then do the following:

1. In the Customize a Model box in the middle of the page, select the **Services** option in the Customization Option dropdown menu
2. Enter in the machine type & model of the system
3. From the search results, you can click either **Deployment Services** or **Support Services** to view the offerings

The following table explains warranty service definitions in more detail.

Table 14. Warranty service definitions

Term	Description
On-site service	A service technician will arrive at the client's location for equipment service.
24x7x2 hour	A service technician is scheduled to arrive at the client's location within two hours after remote problem determination is completed. Lenovo provides service around the clock, every day, including Lenovo holidays.
24x7x4 hour	A service technician is scheduled to arrive at the client's location within four hours after remote problem determination is completed. Lenovo provides service around the clock, every day, including Lenovo holidays.
9x5x4 hour	A service technician is scheduled to arrive at the client's location within four business hours after remote problem determination is completed. Lenovo provides service 8:00 am - 5:00 pm in the client's local time zone, Monday-Friday, excluding Lenovo holidays. For example, if a customer reports an incident at 3:00 pm on Friday, the technician will arrive by 10:00 am the following Monday.
9x5 next business day	A service technician is scheduled to arrive at the client's location on the business day after remote problem determination is completed. Lenovo provides service 8:00 am - 5:00 pm in the client's local time zone, Monday - Friday, excluding Lenovo holidays. Calls received after 4:00 pm local time require an extra business day for service dispatch. Next business day service is not guaranteed.
Committed Repair	Problems receive priority handling so that repairs are completed within the committed time of 6, 8, or 24 hours. Lenovo provides service 24 hours/day, every day, including Lenovo holidays.

The following Lenovo warranty service upgrades are available:

- Warranty and maintenance service upgrades:
  - Three, four, or five years of 9x5 or 24x7 service coverage
  - Onsite response from next business day to 2 or 4 hours
  - Committed repair service
  - Warranty extension of up to 5 years
  - Post warranty extensions
- Committed Repair Service
  Committed Repair Services enhances the level of Warranty Service Upgrade or Post Warranty/Maintenance Service offering associated with the selected systems. Offerings vary and are available in select countries.
  - Priority handling to meet defined time frames to restore the failing machine to good working condition
  - Committed repair service levels are measured within the following coverage hours:
    - 24x7x6: Service performed 24 hours per day, 7 days per week, within 6 hours
    - 24x7x8: Service performed 24 hours per day, 7 days per week, within 8 hours
    - 24x7x24: Service performed 24 hours per day, 7 days per week, within 24 hours
- Hard Disk Drive Retention
  Lenovo's Hard Disk Drive Retention (HDDR) service is a multi-drive hard drive retention offering that ensures your data is always under your control, regardless of the number of hard drives that are installed in your Lenovo server. In the unlikely event of a hard drive failure, you retain possession of your hard drive while Lenovo replaces the failed drive part. Your data stays safely on your premises, in your hands. The Hard Drive Retention service can be purchased in convenient bundles with our warranty upgrades and extensions.
- Microcode Support
  Keeping microcode current helps prevent hardware failures and security exposure. There are two levels of service: analysis of the installed base and analysis and update where required. Offerings vary by region and can be bundled with other warranty upgrades and extensions.

- Remote Technical Support Services (RTS)
  RTS provides comprehensive technical call center support for covered servers, storage, operating systems, and applications. Providing a single source for support of hardware and software issues, RTS can reduce problem resolution time, decreasing the cost to address technical problems and increasing uptime. Offerings are available for Windows, Linux, IBM Systems Director, VMware, Microsoft business applications, and Lenovo System x storage devices, and IBM OEM storage devices.

Regulatory compliance

The server conforms to the following international standards:

- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 4, Class A
- UL/IEC 60950-1
- CSA C22.2 No. 69950-1-03
- NOM-019
- Argentina IEC60950-1
- Japan VCCI, Class A
- Australia/New Zealand AS/NZS CISPR 22, Class A
- IEC-60950-1:2001 (CB Certificate and CB Test Report)
- Taiwan BSMI CNS 13438, Class A; CNS 14336
- China CCC (GB4943), GB9254 Class A, GB17625.1
- Korea KN22, Class A; KN24
- Russia/GOST ME01, IEC-60950-1, GOST R 51318.22-99, GOST R 51318.24-99, GOST R 51317.3.2-2006, GOST R 51317.3.3-99
- IEC 60950-1 (CB Certificate and CB Test Report)
- CE Mark (EN55022 Class A, EN60950-1, EN55024, EN61000-3-2, EN61000-3-3)
- CISPR 22, Class A
- TUV-GS (EN60950-1 /IEC60950-1,EK1-ITB2000)

External disk storage expansion

External disk storage expansion (JBOD) is not supported.

External disk storage systems

Lenovo offers the ThinkSystem DE Series, ThinkSystem DG Series and ThinkSystem DM Series external storage systems for high-performance storage. See the DE Series, DG Series and DM Series product guides for specific controller models, expansion enclosures and configuration options:

- ThinkSystem DE Series Storage
  https://lenovopress.com/storage/thinksystem/de-series#rt=product-guide
- ThinkSystem DM Series Storage
  https://lenovopress.com/storage/thinksystem/dm-series#rt=product-guide
- ThinkSystem DG Series Storage
  https://lenovopress.com/storage/thinksystem/dg-series#rt=product-guide

External backup units

The following table lists the external backup options that are offered by Lenovo.

Table 15. External backup options

Part number	Description
External RDX USB drives	
4T27A10725	ThinkSystem RDX External USB 3.0 Dock
External SAS tape backup drives	
6160S7E	IBM TS2270 Tape Drive Model H7S
6160S8E	IBM TS2280 Tape Drive Model H8S
6160S9E	IBM TS2290 Tape Drive Model H9S
External SAS tape backup autoloaders	
6171S7R	IBM TS2900 Tape Autoloader w/LTO7 HH SAS
6171S8R	IBM TS2900 Tape Autoloader w/LTO8 HH SAS
6171S9R	IBM TS2900 Tape Autoloader w/LTO9 HH SAS
External tape backup libraries	
6741A1F	IBM TS4300 3U Tape Library-Base Unit
6741A3F	IBM TS4300 3U Tape Library-Expansion Unit
Full High 8 Gb Fibre Channel for TS4300	
01KP938	LTO 7 FH Fibre Channel Drive
01KP954	LTO 8 FH Fibre Channel Drive
02JH837	LTO 9 FH Fibre Channel Drive
Half High 8 Gb Fibre Channel for TS4300	
01KP936	LTO 7 HH Fibre Channel Drive
01KP952	LTO 8 HH Fibre Channel Drive
02JH835	LTO 9 HH Fibre Channel Drive
Half High 6 Gb SAS for TS4300	
01KP937	LTO 7 HH SAS Drive
01KP953	LTO 8 HH SAS Drive
02JH836	LTO 9 HH SAS Drive

For more information, see the list of Product Guides in the Backup units category:
https://lenovopress.com/servers/options/backup

Top-of-rack Ethernet switches

The following table lists the Ethernet LAN switches that are offered by Lenovo.

Table 16. Ethernet LAN switches

Part number	Description
1 Gb Ethernet Rack switches	
7Y810011WW	Lenovo ThinkSystem NE0152T RackSwitch (Rear to Front)
7Z320O11WW	Lenovo ThinkSystem NE0152TO RackSwitch (Rear to Front, ONIE)
7159BAX	Lenovo RackSwitch G7028 (Rear to Front)
7159CAX	Lenovo RackSwitch G7052 (Rear to Front)
7159G52	Lenovo RackSwitch G8052 (Rear to Front)
7165H1X	Juniper EX2300-C PoE Switch
7165H2X	Juniper EX2300-24p PoE Switch
1 Gb Ethernet Campus switches	
7Z340011WW	Lenovo CE0128TB Switch (3-Year Warranty)
7Z360011WW	Lenovo CE0128TB Switch (Limited Lifetime Warranty)
7Z340012WW	Lenovo CE0128PB Switch (3-Year Warranty)
7Z360012WW	Lenovo CE0128PB Switch (Limited Lifetime Warranty)
7Z350021WW	Lenovo CE0152TB Switch (3-Year Warranty)
7Z370021WW	Lenovo CE0152TB Switch (Limited Lifetime Warranty)
7Z350022WW	Lenovo CE0152PB Switch (3-Year Warranty)
7Z370022WW	Lenovo CE0152PB Switch (Limited Lifetime Warranty)
10 Gb Ethernet switches	
7159A1X	Lenovo ThinkSystem NE1032 RackSwitch (Rear to Front)
7159B1X	Lenovo ThinkSystem NE1032T RackSwitch (Rear to Front)
7Z330O11WW	Lenovo ThinkSystem NE1064TO RackSwitch (Rear to Front, ONIE)
7159C1X	Lenovo ThinkSystem NE1072T RackSwitch (Rear to Front)
7159CRW	Lenovo RackSwitch G8272 (Rear to Front)
7159GR6	Lenovo RackSwitch G8296 (Rear to Front)
7159BR6	Lenovo RackSwitch G8124E (Rear to Front)
25 Gb Ethernet switches	
7159E1X	Lenovo ThinkSystem NE2572 RackSwitch (Rear to Front)
7Z210O21WW	Lenovo ThinkSystem NE2572O RackSwitch (Rear to Front, ONIE)
7Z330O21WW	Lenovo ThinkSystem NE2580O RackSwitch (Rear to Front, ONIE)
100 Gb Ethernet switches	
7159D1X	Lenovo ThinkSystem NE10032 RackSwitch (Rear to Front)
7Z210O11WW	Lenovo ThinkSystem NE10032O RackSwitch (Rear to Front, ONIE)

For more information, see the list of Product Guides in the following switch categories:

- 1 Gb Ethernet switches: http://lenovopress.com/networking/tor/1gb?rt=product-guide
- 10 Gb Ethernet switches: http://lenovopress.com/networking/tor/10gb?rt=product-guide
- 25 Gb Ethernet switches: http://lenovopress.com/networking/tor/25gb?rt=product-guide
- 40 Gb Ethernet switches: http://lenovopress.com/networking/tor/40gb?rt=product-guide
- 100 Gb Ethernet switches: https://lenovopress.com/networking/tor/100Gb?rt=product-guide

Uninterruptible power supply units

The following table lists the uninterruptible power supply (UPS) units that are offered by Lenovo.

Table 17. Uninterruptible power supply units

Part number	Description
Rack-mounted or tower UPS units - 100-125VAC	
7DD5A001WW	RT1.5kVA 2U Rack or Tower UPS-G2 (100-125VAC)
55941AX	RT1.5kVA 2U Rack or Tower UPS (100-125VAC)
55942AX	RT2.2kVA 2U Rack or Tower UPS (100-125VAC)
7DD5A003WW	RT3kVA 2U Rack or Tower UPS-G2 (100-125VAC)
55943AX	RT3kVA 2U Rack or Tower UPS (100-125VAC)
Rack-mounted or tower UPS units - 200-240VAC	
7DD5A002WW	RT1.5kVA 2U Rack or Tower UPS-G2 (200-240VAC)
55941KX	RT1.5kVA 2U Rack or Tower UPS (200-240VAC)
55942KX	RT2.2kVA 2U Rack or Tower UPS (200-240VAC)
7DD5A005WW	RT3kVA 2U Rack or Tower UPS-G2 (200-240VAC)
55943KX	RT3kVA 2U Rack or Tower UPS (200-240VAC)
7DD5A007WW	RT5kVA 3U Rack or Tower UPS-G2 (200-240VAC)
55945KX	RT5kVA 3U Rack or Tower UPS (200-240VAC)
7DD5A008WW	RT6kVA 3U Rack or Tower UPS-G2 (200-240VAC)
55946KX	RT6kVA 3U Rack or Tower UPS (200-240VAC)
55948KX	RT8kVA 6U Rack or Tower UPS (200-240VAC)
7DD5A00AWW	RT11kVA 6U Rack or Tower UPS-G2 (200-240VAC)
55949KX	RT11kVA 6U Rack or Tower UPS (200-240VAC)
55943KT†	ThinkSystem RT3kVA 2U Standard UPS (200-230VAC) (2x C13 10A, 2x GB 10A, 1x C19 16A outlets)
55943LT†	ThinkSystem RT3kVA 2U Long Backup UPS (200-230VAC) (2x C13 10A, 2x GB 10A, 1x C19 16A outlets)
55946KT†	ThinkSystem RT6kVA 5U UPS (200-230VAC) (2x C13 10A outlets, 1x Terminal Block output)
5594XKT†	ThinkSystem RT10kVA 5U UPS (200-230VAC) (2x C13 10A outlets, 1x Terminal Block output)
Rack-mounted or tower UPS units - 380-415VAC	
55948PX	RT8kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)
55949PX	RT11kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)

† Only available in China and the Asia Pacific market.

For more information, see the list of Product Guides in the UPS category:
https://lenovopress.com/servers/options/ups

Power distribution units

The following table lists the power distribution units (PDUs) that are offered by Lenovo.

Table 18. Power distribution units

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
0U Basic PDUs															
4PU7A93176	C0QH	0U 36 C13 and 6 C19 Basic 32A 1 Phase PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
4PU7A93169	C0DA	0U 36 C13 and 6 C19 Basic 32A 1 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93177	C0QJ	0U 24 C13/C15 and 24 C13/C15/C19 Basic 32A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A93170	C0D9	0U 24 C13/C15 and 24 C13/C15/C19 Basic 32A 3 Phase WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
00YJ776	ATZY	0U 36 C13/6 C19 24A 1 Phase PDU	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
00YJ779	ATZX	0U 21 C13/12 C19 48A 3 Phase PDU	N	N	Y	N	N	N	Y	N	N	Y	Y	Y	N
00YJ777	ATZZ	0U 36 C13/6 C19 32A 1 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y
00YJ778	AU00	0U 21 C13/12 C19 32A 3 Phase PDU	Y	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y
0U Switched and Monitored PDUs															
4PU7A93181	C0QN	0U 21 C13/C15 and 21 C13/C15/C19 Switched and Monitored 48A 3 Phase Delta PDU v2 (60A derated)	N	Y	N	N	N	N	N	Y	N	Y	N	Y	N
4PU7A93174	C0D5	0U 21 C13/C15 and 21 C13/C15/C19 Switched and Monitored 48A 3 Phase Delta PDU (60A derated)	N	Y	N	N	N	N	N	Y	N	N	N	Y	N
4PU7A93178	C0QK	0U 20 C13 and 4 C19 Switched and Monitored 32A 1 Phase PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93171	C0D8	0U 20 C13 and 4 C19 Switched and Monitored 32A 1 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93182	C0QP	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 63A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A93175	C0CS	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 63A 3 Phase WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93180	C0QM	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 32A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A93173	C0D6	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 32A 3 Phase WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93179	C0QL	0U 16 C13/C15 and 16 C13/C15/C19 Switched and Monitored 24A 1 Phase PDU v2 (30A derated)	N	Y	N	N	N	N	N	Y	N	Y	N	Y	N
4PU7A93172	C0D7	0U 16 C13/C15 and 16 C13/C15/C19 Switched and Monitored 24A 1 Phase PDU(30A derated)	N	Y	N	N	N	N	N	Y	N	N	N	Y	N
00YJ783	AU04	0U 12 C13/12 C19 Switched and Monitored 48A 3 Phase PDU	N	N	Y	N	N	N	Y	N	N	Y	Y	Y	N
00YJ781	AU03	0U 20 C13/4 C19 Switched and Monitored 24A 1 Phase PDU	N	N	Y	N	Y	N	Y	N	N	Y	Y	Y	N
00YJ782	AU02	0U 18 C13/6 C19 Switched and Monitored 32A 3 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
00YJ780	AU01	0U 20 C13/4 C19 Switched and Monitored 32A 1 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
1U Switched and Monitored PDUs															
4PU7A90808	C0D4	1U 18 C19/C13 Switched and monitored 48A 3P WYE PDU V2 ETL	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
4PU7A81117	BNDV	1U 18 C19/C13 switched and monitored 48A 3P WYE PDU - ETL	N	N	N	N	N	N	N	N	N	N	N	Y	N
4PU7A90809	C0DE	1U 18 C19/C13 Switched and monitored 48A 3P WYE PDU V2 CE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
4PU7A81118	BNDW	1U 18 C19/C13 switched and monitored 48A 3P WYE PDU – CE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
4PU7A90810	C0DD	1U 18 C19/C13 Switched and monitored 80A 3P Delta PDU V2	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
4PU7A77467	BLC4	1U 18 C19/C13 Switched and Monitored 80A 3P Delta PDU	N	N	N	N	N	N	N	N	N	Y	N	Y	N
4PU7A90811	C0DC	1U 12 C19/C13 Switched and monitored 32A 3P WYE PDU V2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A77468	BLC5	1U 12 C19/C13 switched and monitored 32A 3P WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A90812	C0DB	1U 12 C19/C13 Switched and monitored 60A 3P Delta PDU V2	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
4PU7A77469	BLC6	1U 12 C19/C13 switched and monitored 60A 3P Delta PDU	N	N	N	N	N	N	N	N	N	N	N	Y	N
46M4002	5896	1U 9 C19/3 C13 Switched and Monitored DPI PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46M4004	5894	1U 12 C13 Switched and Monitored DPI PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46M4003	5897	1U 9 C19/3 C13 Switched and Monitored 60A 3 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46M4005	5895	1U 12 C13 Switched and Monitored 60A 3 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U Ultra Density Enterprise PDUs (9x IEC 320 C13 + 3x IEC 320 C19 outlets)															
71763NU	6051	Ultra Density Enterprise C19/C13 PDU 60A/208V/3PH	N	N	Y	N	N	N	N	N	N	Y	Y	Y	N
71762NX	6091	Ultra Density Enterprise C19/C13 PDU Module	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U C13 Enterprise PDUs (12x IEC 320 C13 outlets)															
39M2816	6030	DPI C13 PDU+	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8941	6010	Enterprise C13 PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U C19 Enterprise PDUs (6x IEC 320 C19 outlets)															
39Y8948	6060	Enterprise C19 PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8923	6061	Enterprise C19 3 phase PDU (60a)	N	N	Y	N	N	N	Y	N	N	N	Y	Y	N
1U Front-end PDUs (3x IEC 320 C19 outlets)															
39Y8938	6002	DPI 30amp/125V Front-end PDU with NEMA L5-30P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8939	6003	DPI 30amp/250V Front-end PDU with NEMA L6-30P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8934	6005	DPI 32amp/250V Front-end PDU with IEC 309 2P+Gnd	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8940	6004	DPI 60amp/250V Front-end PDU with IEC 309 2P+Gnd connector	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N
39Y8935	6006	DPI 63amp/250V Front-end PDU with IEC 309 2P+Gnd connector	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U NEMA PDUs (6x NEMA 5-15R outlets)															
39Y8905	5900	DPI 100-127v PDU with Fixed Nema L5-15P line cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
Line cords for 1U PDUs that ship without a line cord															
40K9611	6504	DPI 32a Cord (IEC 309 3P+N+G)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9612	6502	DPI 32a Cord (IEC 309 P+N+G)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9613	6503	DPI 63a Cord (IEC 309 P+N+G)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9614	6500	DPI 30a Cord (NEMA L6-30P)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9615	6501	DPI 60a Cord (IEC 309 2P+G)	N	N	Y	N	N	N	Y	N	N	Y	Y	Y	N
40K9617	6505	4.3m, 32A/230V, Souriau UTG to AS/NZS 3112 (Aus/NZ) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9618	6506	4.3m, 32A/250V, Souriau UTG Female to KSC 8305 (S. Korea) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

For more information, see the Lenovo Press documents in the PDU category:
https://lenovopress.com/servers/options/pdu

Rack cabinets

The server supports the rack cabinets listed in the following table.

Table 19. Rack cabinets

Part number	Description
201886X	11U Office Enablement Kit
93084EX	42U Enterprise Expansion Rack
93084PX	42U Enterprise Rack
93604EX	42U 1200 mm Deep Dynamic Expansion Rack
93604PX	42U 1200 mm Deep Dynamic Rack
93614EX	42U 1200 mm Deep Static Expansion Rack
93614PX	42U 1200 mm Deep Static Rack
93624EX	47U 1200 mm Deep Static Expansion Rack
93624PX	47U 1200 mm Deep Static Rack
14104RX	Linux Cluster Rack

For more information, see the list of Product Guides in the Rack cabinets and options category:
https://lenovopress.com/servers/options/racks

KVM console options

The following table lists the supported KVM consoles, keyboards, and KVM switches.

Table 20. Console keyboards

Part number	Description
Consoles	
17238BX	1U 18.5" Standard Console (without keyboard)
Console keyboards	
00MW310	Lenovo UltraNav Keyboard USB - US Eng
46W6713	Keyboard w/ Int. Pointing Device USB - Arabic 253 RoHS v2

Part number	Description
46W6714	Keyboard w/ Int. Pointing Device USB - Belg/UK 120 RoHS v2
46W6715	Keyboard w/ Int. Pointing Device USB - Chinese/US 467 RoHS v2
46W6716	Keyboard w/ Int. Pointing Device USB - Czech 489 RoHS v2
46W6717	Keyboard w/ Int. Pointing Device USB - Danish 159 RoHS v2
46W6718	Keyboard w/ Int. Pointing Device USB - Dutch 143 RoHS v2
46W6719	Keyboard w/ Int. Pointing Device USB - French 189 RoHS v2
46W6720	Keyboard w/ Int. Pointing Device USB - Fr/Canada 445 RoHS v2
46W6721	Keyboard w/ Int. Pointing Device USB - German 129 RoHS v2
46W6722	Keyboard w/ Int. Pointing Device USB - Greek 219 RoHS v2
46W6723	Keyboard w/ Int. Pointing Device USB - Hebrew 212 RoHS v2
46W6724	Keyboard w/ Int. Pointing Device USB - Hungarian 208 RoHS v2
46W6725	Keyboard w/ Int. Pointing Device USB - Italian 141 RoHS v2
46W6726	Keyboard w/ Int. Pointing Device USB - Japanese 194 RoHS v2
46W6727	Keyboard w/ Int. Pointing Device USB - Korean 413 RoHS v2
46W6728	Keyboard w/ Int. Pointing Device USB - LA Span 171 RoHS v2
46W6729	Keyboard w/ Int. Pointing Device USB - Norwegian 155 RoHS v2
46W6730	Keyboard w/ Int. Pointing Device USB - Polish 214 RoHS v2
46W6731	Keyboard w/ Int. Pointing Device USB - Portuguese 163 RoHS v2
46W6732	Keyboard w/ Int. Pointing Device USB - Russian 441 RoHS v2
46W6733	Keyboard w/ Int. Pointing Device USB - Slovak 245 RoHS v2
46W6734	Keyboard w/ Int. Pointing Device USB - Spanish 172 RoHS v2
46W6735	Keyboard w/ Int. Pointing Device USB - Swed/Finn 153 RoHS v2
46W6736	Keyboard w/ Int. Pointing Device USB - Swiss F/G 150 RoHS v2
46W6737	Keyboard w/ Int. Pointing Device USB - Thai 191 RoHS v2
46W6738	Keyboard w/ Int. Pointing Device USB - Turkish 179 RoHS v2
46W6739	Keyboard w/ Int. Pointing Device USB - UK Eng 166 RoHS v2
46W6740	Keyboard w/ Int. Pointing Device USB - US Euro 103P RoHS v2
46W6741	Keyboard w/ Int. Pointing Device USB - Slovenian 234 RoHS v2
Console switches	
1754D2X	Global 4x2x32 Console Manager (GCM32)
1754D1X	Global 2x2x16 Console Manager (GCM16)
1754A2X	Local 2x16 Console Manager (LCM16)
1754A1X	Local 1x8 Console Manager (LCM8)
Console switch cables	
43V6147	Single Cable USB Conversion Option (UCO)
39M2895	USB Conversion Option (4 Pack UCO)
46M5383	Virtual Media Conversion Option Gen2 (VCO2)
46M5382	Serial Conversion Option (SCO)

For more information, see the list of Product Guides in the KVM Switches and Consoles category:
http://lenovopress.com/servers/options/kvm

Lenovo Financial Services

Why wait to obtain the technology you need now? No payments for 90 days and predictable, low monthly payments make it easy to budget for your Lenovo solution.

- **Flexible**

  Our in-depth knowledge of the products, services and various market segments allows us to offer greater flexibility in structures, documentation and end of lease options.

- **100% Solution Financing**

  Financing your entire solution including hardware, software, and services, ensures more predictability in your project planning with fixed, manageable payments and low monthly payments.

- **Device as a Service (DaaS)**

  Leverage latest technology to advance your business. Customized solutions aligned to your needs. Flexibility to add equipment to support growth. Protect your technology with Lenovo's Premier Support service.

- **24/7 Asset management**

  Manage your financed solutions with electronic access to your lease documents, payment histories, invoices and asset information.

- **Fair Market Value (FMV) and $1 Purchase Option Leases**

  Maximize your purchasing power with our lowest cost option. An FMV lease offers lower monthly payments than loans or lease-to-own financing. Think of an FMV lease as a rental. You have the flexibility at the end of the lease term to return the equipment, continue leasing it, or purchase it for the fair market value. In a $1 Out Purchase Option lease, you own the equipment. It is a good option when you are confident you will use the equipment for an extended period beyond the finance term. Both lease types have merits depending on your needs. We can help you determine which option will best meet your technological and budgetary goals.

Ask your Lenovo Financial Services representative about this promotion and how to submit a credit application. For the majority of credit applicants, we have enough information to deliver an instant decision and send a notification within minutes.

Related publications and links

For more information see the following resources:

- *System x 3755 M3 Installation and User's Guide*
  http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5085682
- *System x 3755 M3 Problem Determination and Service Guide*
  http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5085681
- ServerProven hardware compatibility page for the x3755 M3
  http://www.lenovo.com/us/en/serverproven/xseries_old/7164.shtml

Related product families

Product families related to this document are the following:

- 4-Socket Rack Servers

Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service. Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

Lenovo (United States), Inc.
8001 Development Drive
Morrisville, NC 27560
U.S.A.
Attention: Lenovo Director of Licensing

LENOVO PROVIDES THIS PUBLICATION ”AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary. Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk. Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

This document, TIPS0838, was created or updated on February 13, 2015.

Send us your comments in one of the following ways:

- Use the online Contact us review form found at:
  https://lenovopress.lenovo.com/TIPS0838
- Send your comments in an e-mail to:
  comments@lenovopress.com

This document is available online at https://lenovopress.lenovo.com/TIPS0838.

Trademarks

Lenovo and the Lenovo logo are trademarks or registered trademarks of Lenovo in the United States, other countries, or both. A current list of Lenovo trademarks is available on the Web at https://www.lenovo.com/us/en/legal/copytrade/.

The following terms are trademarks of Lenovo in the United States, other countries, or both:
Lenovo®
ServerProven®
System x®
ThinkSystem®
UltraNav®

The following terms are trademarks of other companies:

AMD and AMD Opteron™ are trademarks of Advanced Micro Devices, Inc.

Intel® is a trademark of Intel Corporation or its subsidiaries.

Linux® is the trademark of Linus Torvalds in the U.S. and other countries.

Microsoft®, Windows Server®, and Windows® are trademarks of Microsoft Corporation in the United States, other countries, or both.

IBM® and ibm.com® are trademarks of IBM in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.