Lenovo ThinkAgile HX3721 Certified Node (Xeon SP Gen 2)

Product Guide (withdrawn product)

Lenovo ThinkAgile HX Certified Nodes are designed for deploying industry-leading hyperconvergence software from Nutanix on Lenovo enterprise platforms that feature the second generation of the Intel Xeon Processor Scalable Family (Xeon SP Gen 2).

The ThinkAgile HX Certified Nodes deliver fully validated and integrated Lenovo hardware and firmware, certified and preloaded with Nutanix software. Nutanix brings the benefits of web-scale technologies to enterprise applications through enterprise storage, data protection, infrastructure resilience, management and analytics, and security.

The ThinkAgile HX3721 Certified Nodes are dense nodes for compute-heavy workloads in the 2U 4-node (2U4N) rack-mount enclosures, and each node supports two processors, up to 768 GB of TruDDR4 memory with up to 2933 MHz memory speeds, 6x SAS/SATA SFF hot-swap drive bays with an extensive choice of SAS/SATA SSDs and HDDs, and flexible network connectivity options with 1/10 GbE RJ-45, 10 GbE SFP+, 10/25 GbE SFP28, and 25/40 GbE QSFP+ ports.

Several common uses for the ThinkAgile HX Certified Nodes for compute-heavy workloads include virtual desktop infrastructure (VDI), server virtualization, private/hybrid clouds, enterprise applications, light databases, and remote office and branch office workloads.

The ThinkAgile HX3721 Certified Nodes in the HX Series Enclosure are shown in the following figure.

Figure 1. Lenovo ThinkAgile HX3721 Certified Nodes in the HX Series Enclosure

Did you know?

The ThinkAgile HX Certified Nodes are built on industry-leading Lenovo ThinkSystem servers that feature enterprise-class reliability, management, and security.

The ThinkAgile HX Certified Nodes deliver fully validated and integrated hardware and firmware that is certified with Nutanix software.

Key features

The ThinkAgile HX Certified Nodes are designed for the industry's most feature-rich hyperconverged infrastructure from Nutanix. Nutanix brings the benefits of web-scale technologies to enterprise applications through enterprise storage, data protection, infrastructure resilience, management and analytics, and security.

The ThinkAgile HX Certified Nodes offer the following key features:

- Built on proven and reliable Lenovo ThinkSystem servers featuring Intel Xeon Processor Scalable Family that provide compute power for a variety of workloads and applications.
- Deliver fully validated and integrated hardware and firmware that is certified with Nutanix software.
- Preloaded with Nutanix software and ready for out-of-box deployment (software licenses are not included).
- Provide flexibility in using the existing Nutanix term-based software licenses and active support contracts or purchasing new software licenses and support contracts from Nutanix.
- Offer optional Lenovo Professional Services to get customers up and running quickly.

The Nutanix software running on the HX Certified Nodes deliver the following key features:

- A natively integrated solution for data protection and continuous availability at VM granularity that gives administrators an affordable range of options to meet the recovery point objectives (RPO) and recovery time objectives (RTO) for different applications.
- A fault resistant platform, with no single point of failure and no bottlenecks with shared-nothing architecture, where all data, metadata and services are distributed to all nodes within the cluster, that is built to detect, isolate and recover from failures anywhere in the system.
- An intuitive user-centric management experience to simplify every aspect of the IT infrastructure lifecycle and provide a single pane of glass to monitor and control Nutanix clusters, with simplified workflows and rich automation for common administrative tasks.
- Powerful security features, such as two-factor authentication and data-at-rest encryption, with a security development lifecycle that is integrated into product development to help customers meet the most stringent security requirements.

Components and connectors

The following figure shows the front view of the ThinkAgile Enclosure for HX Certified Node with up to four HX3721 Certified Nodes.

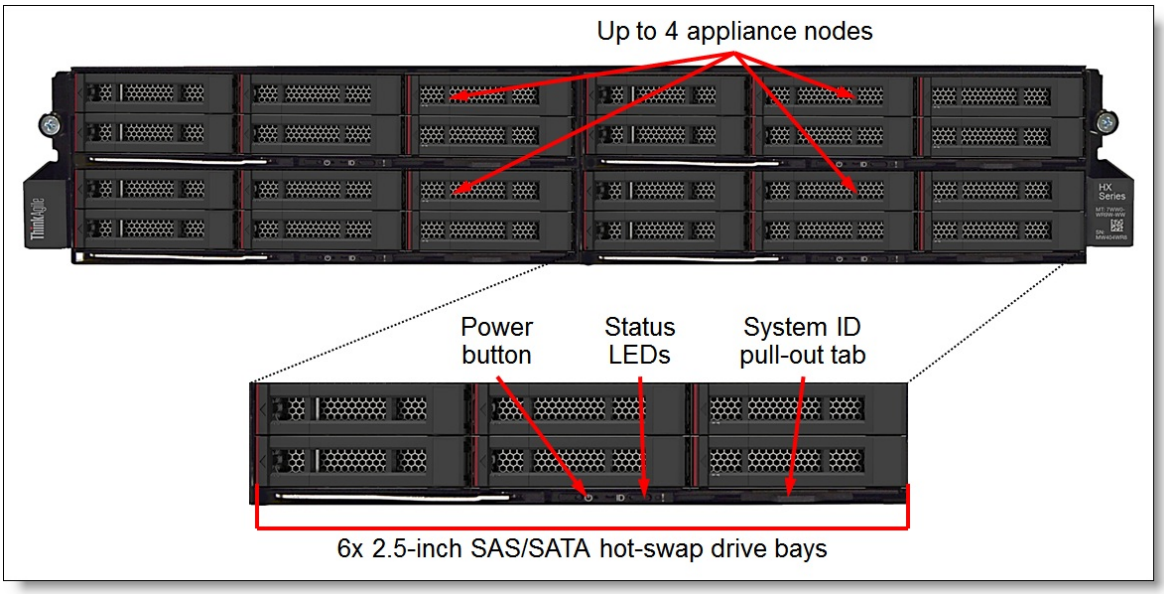

Figure 2. HX Enclosure with up to four HX3721 Certified Nodes front view

The front of the HX Series enclosure contains up to four HX3720 Certified Nodes, and each certified node includes the following components:

- 6x SFF SAS/SATA hot-swap drive bays
- A Power button
- Status LEDs
- A System ID pull-out tab

The following figure shows the rear view of the ThinkAgile Enclosure for HX Certified Node.

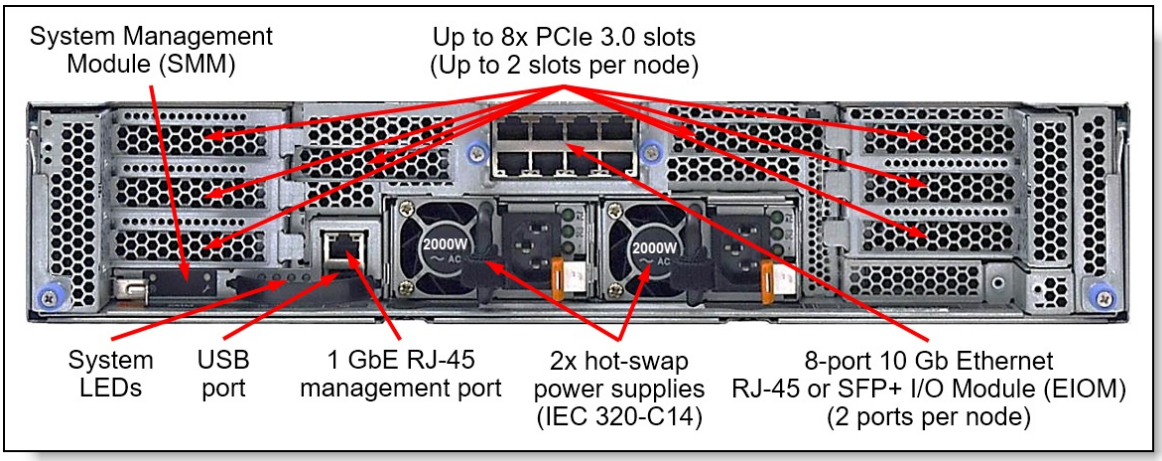

Figure 3. HX Enclosure rear view

The rear of the HX Series enclosure includes the following components:

- Four x16 or eight x8 PCIe 3.0 expansion slots (1x PCIe 3.0 x16 or 2x PCIe 3.0 x8 slots per node)
- Eight 10 GbE RJ-45 or SFP+ network ports
- A System Management Module
    - One 1 GbE management port
    - One USB port
    - Status LEDs
- Two hot-swap power supplies

System specifications

The following table lists the system specifications of the ThinkAgile HX3721 Certified Node.

Table 1. HX3721 system specifications

Attribute	Specification
Form factor	HX3721: Half-wide, 1U node; up to four nodes per enclosure. HX Series enclosure: 2U Four-node (2U4N) rack-mount.
Processor	Two Intel Xeon Silver, Gold, or Platinum Gen 2 processors.
Chipset	Intel C624.
Memory	Up to 12 TruDDR4 RDIMMs (up to 6 DIMMs per processor; six memory channels per processor with one DIMMs per channel) with support for the following RDIMM capacities: ● 16 GB, 32 GB, and 64 GB 2933 MHz. ● 16 GB and 32 GB 2666 MHz.
Memory capacity	Up to 768 GB.
Memory protection	Error correction code (ECC), Single Device Data Correction (SDDC; for x4-based memory DIMMs), Adaptive Double Device Data Correction (ADDDC; for x4-based memory DIMMs, requires Intel Xeon Gold or Platinum processors), patrol scrubbing, and demand scrubbing.
Drive bays	6x 2.5-inch SAS/SATA hot-swap.
Internal storage	● Hybrid: 2 cache SSDs and 4 capacity HDDs. ● All Flash: From 2 to 6 SSDs in increments of 2 drives.
Storage controller	1x 430-8i Dense HBA (12 Gbps SAS/6 Gbps SATA).
Network interfaces	● 2x 1/10 GbE RJ-45 or 10 GbE SFP+ base network ports. ● 2x 1/10 GbE RJ-45, 10 GbE SFP+, or 25 GbE SFP28, or 2x 40 GbE QSFP+ optional expansion ports.
Boot drive	2x M.2 non-hot-swap SSDs up to 480 GB (RAID-1).

Attribute	Specification

I/O expansion slots	• One PCIe 3.0 x8 on the system board (for an internal storage controller).
	• Up to two PCIe slots per node in the HX Enclosure:
	  ◦ PCIe x16 I/O shuttle:
	  ▪ Slot 1 (Node 1): PCIe 3.0 x16 low-profile.
	  ▪ Slot 2 (Node 2): PCIe 3.0 x16 low-profile.
	  ▪ Slot 3 (Node 3): PCIe 3.0 x16 low-profile.
	  ▪ Slot 4 (Node 4): PCIe 3.0 x16 low-profile.
	  ◦ PCIe x8 I/O shuttle:
	  ▪ Slot 1-A (Node 1): PCIe 3.0 x8 low-profile.
	  ▪ Slot 1-B (Node 1): PCIe 3.0 x8 low-profile.
	  ▪ Slot 2-A (Node 2): PCIe 3.0 x8 low-profile.
	  ▪ Slot 2-B (Node 2): PCIe 3.0 x8 low-profile.
	  ▪ Slot 3-A (Node 3): PCIe 3.0 x8 low-profile.
	  ▪ Slot 3-B (Node 3): PCIe 3.0 x8 low-profile.
	  ▪ Slot 4-A (Node 4): PCIe 3.0 x8 low-profile.
	  ▪ Slot 4-B (Node 4): PCIe 3.0 x8 low-profile.

Ports	• 1x Gigabit Ethernet RJ-45 port for systems management (per enclosure). • 1x USB port (per enclosure).
Cooling	Five hot-swap system fans (per enclosure).
Power supply	Two redundant hot-swap 1100 W (100 - 240 V), 1600 W (200 - 240 V), or 2000 W (200 - 240 V) Platinum power supplies (per enclosure).
Video	Matrox G200 with 16 MB memory integrated into the XClarity Controller. Maximum resolution is 1920x1200 at 60 Hz with 32 bits per pixel.
Hot-swap parts	SSDs, HDDs, power supplies, and fans.
Systems management	XClarity Controller (XCC) Enterprise (Pilot 4 chip), proactive platform alerts, XClarity Provisioning Manager, XClarity Administrator and XClarity Pro. XClarity Energy Manager (optional).
Security features	Power-on password, administrator's password, Trusted Platform Module (TPM) 1.2 or 2.0 (configurable UEFI setting).
Software	Nutanix Acropolis Pro and Ultimate editions (licenses purchased separately from Nutanix).
Hypervisors	• Nutanix Acropolis Hypervisor (Bundled with AOS). • VMware ESXi 6.5 Update 2. • VMware ESXi 6.5 Update 3. • VMware ESXi 6.7 Update 1. • VMware ESXi 6.7 Update 3. • Microsoft Windows Server 2016 Datacenter (Hyper-V).
Warranty and support	One- (PRC only), three-, four-, or five-year customer-replaceable unit and onsite limited warranty with selectable service levels: 9x5 coverage with next business day (NBD) parts delivered (base warranty), 9x5 coverage with NBD onsite response (Foundation Service), 24x7 coverage with 4-hour onsite response or 24-hour committed repair (select areas) (Essential Service), or 24x7 coverage with 2-hour onsite response or 6-hour committed repair (select areas) (Advanced Service). Also available are 1-year and 2-year post-warranty extensions, YourDrive YourData, and Enterprise Software Support.
Dimensions	• Enclosure: Height: 87 mm (3.4 in.), width: 448 mm (17.6 in.), depth: 834 mm (32.8 in.). • Node: Height: 41 mm (1.6 in.), width: 222 mm (8.7 in.), depth: 562 mm (21.1 in.).
Weight	• Enclosure (maximum configuration, with four nodes): 55.0 kg (121.3 lb). • Node (maximum configuration): 7.5 kg (16.5 lb).

Factory-integrated models

Factory-integrated models of the ThinkAgile HX Certified Nodes are configured by using the Lenovo Data Center Solution Configurator (DCSC):
http://dcsc.lenovo.com

During the configuration process, you are selecting one of the base Configure-to-Order (CTO) models first, and then you are adding components (processors, memory, drives, and network adapters) to the selected model according to the output from the Nutanix Sizer tool:
http://services.nutanix.com/

The following table lists the base CTO models of the ThinkAgile HX3721 Certified Node and Enclosure.

Table 2. Base CTO models

Description	Machine Type/Model
Models with 3-year warranty (Worldwide)	
Lenovo ThinkAgile HX3721 Certified Node 3YR	7Y88CTO2WW
Lenovo ThinkAgile Enclosure for HX Certified Node 3YR	7Y87CTO1WW
Models with 1-year warranty (PRC only)	
Lenovo ThinkAgile HX3721 Certified Node 1YR	7Z03CTO2WW
Lenovo ThinkAgile Enclosure for HX Certified Node 1YR	7Z02CTO1WW

The following table lists the base chassis for the HX3721 Certified Node.

Table 3. Base chassis

Description	Feature code
ThinkAgile HX372x Base (Gen 2)	B6D0

The HX3721 Certified Nodes ship with the following items:

- *Electronic Publications Flyer*
- D2 Tool-less Slide Rail Kit with CMA (enclosure only)
- With or without two rack power cables or line cords (enclosure only; depending on the power cable option selection)

Processors

The ThinkAgile HX3721 Certified Node ships with two processors. The following table lists the processor options that are available for selection.

Support for additional processors: The table below lists the processors supported across all configurations. Additional processors may also be supported. Please contact your Lenovo representative regarding the support of additional options through our Special Bid ordering process.

Table 4. Processor selection options

Description	Feature code	Quantity
Intel Xeon Silver processors		
Intel Xeon Silver 4208 8C 85W 2.1GHz Processor	B4HT	2

Description	Feature code	Quantity
Intel Xeon Silver 4210 10C 85W 2.2GHz Processor	B4HS	2
Intel Xeon Silver 4210R 10C 100W 2.4GHz Processor	B7N5	2
Intel Xeon Silver 4214 12C 85W 2.2GHz Processor	B4HR	2
Intel Xeon Silver 4214R 12C 100W 2.4GHz Processor	B7N6	2
Intel Xeon Silver 4215 8C 85W 2.5GHz Processor	B4HQ	2
Intel Xeon Silver 4216 16C 100W 2.1GHz Processor	B4HP	2
Intel Xeon Gold processors		
Intel Xeon Gold 5215 10C 85W 2.5GHz Processor	B4HN	2
Intel Xeon Gold 5215L 10C 85W 2.5GHz Processor	B4P9	2
Intel Xeon Gold 5218 16C 125W 2.3GHz Processor	B4HL	2
Intel Xeon Gold 5218R 20C 125W 2.1GHz Processor	BAZS	2
Intel Xeon Gold 5220 18C 125W 2.2GHz Processor	B4HK	2
Intel Xeon Gold 5220S 18C 125W 2.7GHz Processor	B6CW	2
Intel Xeon Gold 6230 20C 125W 2.1GHz Processor	B4HJ	2
Intel Xeon Gold 6238 22C 140W 2.1GHz Processor	B6CJ	2
Intel Xeon Platinum processors		
Intel Xeon Platinum 8253 16C 125W 2.2GHz Processor	B5RZ	2

The following table lists the specifications of the processors for the certified nodes.

Processor specifications table abbreviations:

- UPI: Ultra Path Interconnect
- TDP: Thermal Design Power
- HT: Hyper-Threading
- TB: Turbo Boost 2.0
- VT-x: Virtualization Technology
- VT-d: Virtualization Technology for Directed I/O
- RAS: Reliability, Availability, and Serviceability
  - Std: Standard RAS
  - Adv: Advanced RAS

Table 5. Processor specifications

CPU model	Cores / threads	Core speed (Base / TB Max)	Cache	Max DDR4 speed	Max memory capacity per socket	UPI speed	TDP	HT	TB	VT-x	VT-d	RAS
Intel Xeon Silver processors												
4208	8 / 16	2.1 / 3.2 GHz	11 MB	2400 MHz	1 TB	9.6 GT/s	85 W	Y	Y	Y	Y	Std
4210	10 / 20	2.2 / 3.2 GHz	13.75 MB	2400 MHz	1 TB	9.6 GT/s	85 W	Y	Y	Y	Y	Std
4210R	10 / 20	2.4 / 3.2 GHz	13.75 MB	2400 MHz	1 TB	9.6 GT/s	100 W	Y	Y	Y	Y	Std
4214	12 / 24	2.2 / 3.2 GHz	16.5 MB	2400 MHz	1 TB	9.6 GT/s	85 W	Y	Y	Y	Y	Std
4214R	12 / 24	2.4 / 3.5 GHz	16.5 MB	2400 MHz	1 TB	9.6 GT/s	100 W	Y	Y	Y	Y	Std
4215	8 / 16	2.5 / 3.5 GHz	11 MB	2400 MHz	1 TB	9.6 GT/s	85 W	Y	Y	Y	Y	Std
4216	16 / 32	2.1 / 3.2 GHz	22 MB	2400 MHz	1 TB	9.6 GT/s	100 W	Y	Y	Y	Y	Std
Intel Xeon Gold processors												
5215	10 / 20	2.5 / 3.4 GHz	13.75 MB	2666 MHz	1 TB	10.4 GT/s	85 W	Y	Y	Y	Y	Adv
5215L	10 / 20	2.5 / 3.4 GHz	13.75 MB	2666 MHz	4.5 TB	10.4 GT/s	85 W	Y	Y	Y	Y	Adv

CPU model	Cores / threads	Core speed (Base / TB Max)	Cache	Max DDR4 speed	Max memory capacity per socket	UPI speed	TDP	HT	TB	VT-x	VT-d	RAS
5218	16 / 32	2.3 / 3.9 GHz	22 MB	2666 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv
5218R	20 / 40	2.1 / 4.0 GHz	27.5 MB	2666 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv
5220	18 / 36	2.2 / 3.9 GHz	24.75 MB	2666 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv
5220S	18 / 36	2.7 / 3.9 GHz	24.75 MB	2667 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv
6230	20 / 40	2.1 / 3.9 GHz	27.5 MB	2933 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv
6238	22 / 44	2.1 / 3.7 GHz	30.25 MB	2933 MHz	1 TB	10.4 GT/s	140 W	Y	Y	Y	Y	Adv
Intel Xeon Platinum processors												
8253	16 / 32	2.2 / 3 GHz	22 MB	2933 MHz	1 TB	10.4 GT/s	125 W	Y	Y	Y	Y	Adv

Memory

The ThinkAgile HX3721 Certified Nodes support Lenovo TruDDR4 memory. TruDDR4 memory uses the highest-quality components sourced from Tier 1 DRAM suppliers and only memory that meets strict requirements is selected. It is compatibility tested and tuned to maximize performance and reliability.

The HX3721 supports up to 12 DIMMs with two processors. Each processor has six memory channels (two integrated memory controllers with three memory channels per memory controller), and there is one DIMM per channel.

The following rules apply when selecting the memory configuration:

- The certified node supports RDIMMs with rated speeds of 2666 MHz or 2933 MHz.
- The following memory capacities are supported by the certified node: 192 GB, 384 GB, 512 GB, and 768 GB.
- All DIMMs in the certified node must be of the same type, speed, rank, and capacity (the same part number or feature code).
- All DIMMs in the certified node operate at the same speed, which is determined as the lowest value of:
  - DIMM rated speed (2666 MHz or 2933 MHz).
  - Memory speed supported by the specific processor (2400 MHz, 2666 MHz, or 2933 MHz).

  Note: Maximum memory speed can be achieved when Max performance mode is enabled in UEFI.

The following memory protection technologies are supported:

- ECC
- SDDC (for x4-based memory DIMMs)
- ADDDC (for x4-based memory DIMMs; Gold and Platinum processors only)
- Patrol scrubbing
- Demand scrubbing

The following table lists the memory options that are available for selection.

Table 6. Memory selection options

Description	Part number	Feature code	Quantity			
			192 GB	384 GB	512 GB*	768 GB
ThinkSystem 2933 MHz RDIMMs						
16GB TruDDR4 2933MHz (2Rx8 1.2V) RDIMM	4ZC7A08708	B4H2	12	-	-	-
32GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM	4ZC7A08709	B4H3	-	12	-	-
64GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM	4ZC7A08710	B4H4	-	-	8	12
ThinkSystem 2666 MHz RDIMMs						
16GB TruDDR4 2666 MHz (2Rx8 1.2V) RDIMM	7X77A01303	AUNC	12	-	-	-
32GB TruDDR4 2666 MHz (2Rx4 1.2V) RDIMM	7X77A01304	AUND	-	12	-	-

* System performance might be impacted due to unbalanced memory configuration.

Internal storage

The ThinkAgile HX3721 Certified Node provides 6x SAS/SATA SFF hot-swap drive bays for configurable storage capacity, and it contains two internal M.2 SATA non-hot-swap SSDs configured in a RAID-1 drive group for software preload.

The following table lists the internal storage options for the HX3721 Certified Node.

Table 7. Internal storage options

Description	Feature code	Quantity
Backplanes		
ThinkSystem SD530 3x2 SAS/SATA Backplane	AUYG	1
M.2 enablement kit		
ThinkSystem M.2 with Mirroring Enablement Kit	AUMV	1

Configuration notes:

- One SAS/SATA backplane and one M.2 with Mirroring Enablement Kit are derived by the configurator.
- The M.2 with Mirroring Enablement Kit is connected to the Intel PCH via the PCIe link, and the kit supports two M.2 SATA SSDs configured in a RAID-1 drive group for software preload.

The following table lists M.2 drive selection options for software preload.

Table 8. Drive options for software preload

Description	Feature code	Quantity
ThinkSystem M.2 128GB SATA 6Gbps Non-Hot-Swap SSD	AUUV	2
ThinkSystem M.2 5100 240GB SATA 6Gbps Non-Hot Swap SSD	B5S4	2
ThinkSystem M.2 5300 240GB SATA 6Gbps Non-Hot Swap SSD	B8HS	2
ThinkSystem M.2 5100 480GB SATA 6Gbps Non-Hot Swap SSD	B11V	2
ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD	B919	2

Configuration note: Two M.2 SATA SSDs are required for selection, and they must be of the same model and capacity.

The following table lists the storage controllers for internal storage of the HX3721 Certified Node.

Table 9. Controllers for internal storage

Description	Feature code	Quantity
ThinkSystem 430-8i SAS/SATA 12Gb Dense HBA (non-RAID)	B0SS	1

Configuration note: A low profile SAS HBA for internal storage are derived by the configurator, and it occupies the internal PCIe slot.

Drives for internal storage

The system supports the drives listed in the following tables.

Configuration notes:

- For hybrid configurations, the system supports 2 cache drives (SSDs) and 4 capacity drives (HDDs).
- For All Flash configurations, the system supports from 2 to 6 SSDs in increments of 2 drives.
- All SSDs in the system must be of the same model and capacity. All HDDs in the system must be of the same type and capacity.
- The M.2 drives are used for software preload. Two M.2 SATA SSDs are required for selection, and they must be of the same model and capacity.

The following tables list the hard disk drive and solid-state drive options for the internal disk storage of the server.

2.5-inch hot-swap drives:

- Table 9: 2.5-inch hot-swap 12 Gb SAS HDDs
- Table 10: 2.5-inch hot-swap 6 Gb SATA HDDs
- Table 11: 2.5-inch hot-swap 12 Gb SAS SSDs
- Table 12: 2.5-inch hot-swap 6 Gb SATA SSDs

M.2 drives:

- Table 13: M.2 SATA drives

M.2 drive support: The use of M.2 drives requires an additional adapter as described in the Internal storage section.

Table 10. 2.5-inch hot-swap 12 Gb SAS HDDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap HDDs - 12 Gb SAS 10K			
7XB7A00069	B0YS	ThinkSystem 2.5" 2.4TB 10K SAS 12Gb Hot Swap 512e HDD	4

Table 11. 2.5-inch hot-swap 6 Gb SATA HDDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap HDDs - 6 Gb NL SATA			
7XB7A00036	AUUE	ThinkSystem 2.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD	4
7XB7A00037	AUUJ	ThinkSystem 2.5" 2TB 7.2K SATA 6Gb Hot Swap 512e HDD	4

Table 12. 2.5-inch hot-swap 12 Gb SAS SSDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap SSDs - 12 Gb SAS - Mainstream (3-5 DWPD)			
4XB7A17062	B8HU	ThinkSystem 2.5" PM1645a 800GB Mainstream SAS 12Gb Hot Swap SSD	6
4XB7A17063	B8J4	ThinkSystem 2.5" PM1645a 1.6TB Mainstream SAS 12Gb Hot Swap SSD	6
4XB7A13653	B4A0	ThinkSystem 2.5" PM1645 800GB Mainstream SAS 12Gb Hot Swap SSD	6
4XB7A13654	B4A1	ThinkSystem 2.5" PM1645 1.6TB Mainstream SAS 12Gb Hot Swap SSD	6
7N47A00118	AUMD	ThinkSystem 2.5" PM1635a 800GB Mainstream SAS 12Gb Hot Swap SSD	6
7N47A00119	AVRG	ThinkSystem 2.5" PM1635a 1.6TB Mainstream SAS 12Gb Hot Swap SSD	6
2.5-inch hot-swap SSDs - 12 Gb SAS - Entry / Capacity (<3 DWPD)			
4XB7A17054	B91C	ThinkSystem 2.5" PM1643a 3.84TB Entry SAS 12Gb Hot Swap SSD	6
4XB7A17055	B91D	ThinkSystem 2.5" PM1643a 7.68TB Entry SAS 12Gb Hot Swap SSD	6
4XB7A17056	BC4R	ThinkSystem 2.5" PM1643a 15.36TB Entry SAS 12Gb Hot Swap SSD	6
4XB7A13645	B4A7	ThinkSystem 2.5" PM1643 3.84TB Capacity SAS 12Gb Hot Swap SSD	6
7N47A00121	AUMK	ThinkSystem 2.5" PM1633a 3.84TB Capacity SAS 12Gb Hot Swap SSD	6

Table 13. 2.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap SSDs - 6 Gb SATA - Mainstream (3-5 DWPD)			
4XB7A13634	B49M	ThinkSystem 2.5" Intel S4610 480GB Mainstream SATA 6Gb Hot Swap SSD	6
4XB7A13635	B49N	ThinkSystem 2.5" Intel S4610 960GB Mainstream SATA 6Gb Hot Swap SSD	6
4XB7A13636	B49P	ThinkSystem 2.5" Intel S4610 1.92TB Mainstream SATA 6Gb Hot Swap SSD	6
4XB7A10238	B489	ThinkSystem 2.5" 5200 480GB Mainstream SATA 6Gb Hot Swap SSD	6
4XB7A10239	B48A	ThinkSystem 2.5" 5200 960GB Mainstream SATA 6Gb Hot Swap SSD	6
4XB7A10240	B48B	ThinkSystem 2.5" 5200 1.92TB Mainstream SATA 6Gb Hot Swap SSD	6
7SD7A05722	B0ZQ	ThinkSystem 2.5" Intel S4600 480GB Mainstream SATA 6Gb Hot Swap SSD	6
7SD7A05721	B0ZR	ThinkSystem 2.5" Intel S4600 960GB Mainstream SATA 6Gb Hot Swap SSD	6
7SD7A05720	B0ZS	ThinkSystem 2.5" Intel S4600 1.92TB Mainstream SATA 6Gb Hot Swap SSD	6
7SD7A05762	B10Z	ThinkSystem 2.5" 5100 1.92TB Mainstream SATA 6Gb Hot Swap SSD	6
2.5-inch hot-swap SSDs - 6 Gb SATA - Entry (<3 DWPD)			
4XB7A13622	B49B	ThinkSystem 2.5" Intel S4510 1.92TB Entry SATA 6Gb Hot Swap SSD	6
4XB7A13623	B49C	ThinkSystem 2.5" Intel S4510 3.84TB Entry SATA 6Gb Hot Swap SSD	6
4XB7A10198	B34L	ThinkSystem 2.5" PM883 1.92TB Entry SATA 6Gb Hot Swap SSD	6
4XB7A10199	B34M	ThinkSystem 2.5" PM883 3.84TB Entry SATA 6Gb Hot Swap SSD	6

Table 14. M.2 SATA drives

Part number	Feature	Description	Maximum supported
M.2 SSDs - 6 Gb SATA - Entry (<3 DWPD)			
7N47A00130	AUUV	ThinkSystem M.2 128GB SATA 6Gbps Non-Hot Swap SSD	2
4XB7A14049	B5S4	ThinkSystem M.2 5100 240GB SATA 6Gbps Non-Hot Swap SSD	2
7SD7A05703	B11V	ThinkSystem M.2 5100 480GB SATA 6Gbps Non-Hot Swap SSD	2
4XB7A17071	B8HS	ThinkSystem M.2 5300 240GB SATA 6Gbps Non-Hot Swap SSD	2
4XB7A17073	B919	ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD	2

Network connectivity

The ThinkAgile HX3721 Certified Nodes provide base two-port 1/10 GbE RJ-45 or 10 GbE SFP+ network connectivity with the onboard Intel X722 NIC in the certified node and an Ethernet I/O Module (EIOM) installed in the HX Series enclosure. Two or four additional 1/10 GbE RJ-45, 10 GbE SFP+, or 25 GbE SFP28, or two additional 40 GbE QSFP+ expansion ports can be selected, if required.

The following table lists the network connectivity options that are available for selection.

Table 15. Network connectivity selection options

Description	Part number	Feature code	Quantity (min / max)
1/10 GbE RJ-45 base ports			
ThinkSystem D2 10Gb 8 port EIOM Base-T RJ-45	7M17A04001	AUYA	0 / 1*
1/10 GbE RJ-45 expansion ports			
Intel X550-T2 Dual Port 10GBase-T Adapter (RJ-45)	00MM860	ATPX	0 / 2
10 GbE SFP+ base ports			
ThinkSystem D2 10Gb 8 port EIOM SFP+	7M17A04000	AUY9	0 / 1*
10 GbE SFP+ expansion ports			
Intel X710-DA2 PCIe 10Gb 2-Port SFP+ Ethernet Adapter	7ZT7A00537	AUKX	0 / 2
10/25 GbE SFP28 expansion ports			
Mellanox ConnectX-4 Lx 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	01GR250	AUAJ	0 / 2
25/40 GbE QSFP+ expansion ports			
Mellanox ConnectX-5 Ex 25/40GbE 2-port Low-Latency Adapter	4XC7A08229	B31C	0 / 1^
PCIe I/O shuttles			
ThinkSystem D2 4-slot x16 Shuttle	None**	AUY8	0 / 1*
ThinkSystem D2 8-slot x8 Shuttle	None**	AUY7	0 / 1*

* Per HX Series enclosure.
^ For 25 GbE connectivity, the ConnectX-5 adapter requires the optional Mellanox QSA 100G to 25G Cable Adapters (4G17A10853) (one per port); the supported cables include 25 GbE passive DAC and active optical cables (25 GbE transceivers not supported) (see Transceivers and cables for 25 GbE SFP28 ports for details).
** Factory-installed only.

Configuration notes:

- One of the 1/10 GbE RJ-45 or 10 GbE SFP+ EIOMs is required for selection, and it provides base network connectivity. Optional expansion ports can be selected, if needed.
- One of the PCIe I/O shuttles is required for selection, and it supplies I/O slots for optional PCIe network adapters that provide expansion ports.
- The 10 GbE and 25 GbE PCIe network adapters are supported in the low-profile PCIe x8 and x16 slots supplied by the 8-slot PCIe x8 or 4-slot PCIe x16 I/O shuttles.
- The 40 GbE PCIe network adapters are supported in the low-profile PCIe x16 slots supplied by the 4-slot PCIe x16 I/O shuttle.
- Supported transceivers or DAC cables should be purchased for the SFP+, SFP28, and QSFP+ ports, and UTP Category 6 cables should be purchased for the 10 GbE RJ-45 ports. The maximum number of transceivers or cables that are supported per adapter equals the quantity of the adapter ports, and all adapter ports must have the same type of the transceiver or cable selected.
  The following transceiver and cables can be purchased:
  - UTP cables for 1/10 GbE RJ-45 ports
  - Transceivers and cables for 10 GbE SFP+ ports
  - Transceivers and cables for 25 GbE SFP28 ports
  - Transceivers and cables for 40 GbE QSFP+ ports

The following table lists cables for the 1/10 GbE RJ-45 ports.

Table 16. Cables for 1/10 GbE RJ-45 ports

Description	Part number	Feature code
UTP Category 6 cables (Green) for 1/10 GbE RJ-45 ports		
0.75m Cat6 Green Cable	00WE123	AVFW
1.0m Cat6 Green Cable	00WE127	AVFX
1.25m Cat6 Green Cable	00WE131	AVFY
1.5m Cat6 Green Cable	00WE135	AVFZ
3m Cat6 Green Cable	00WE139	AVG0
10m Cat6 Green Cable	90Y3718	A1MT
25m Cat6 Green Cable	90Y3727	A1MW

The following table lists transceivers and cables for the 10 GbE SFP+ ports.

Table 17. Transceivers and cables for 10 GbE SFP+ ports

Description	Part number	Feature code
10 GbE SFP+ SR transceivers for 10 GbE SFP+ ports		
Lenovo 10GBASE-SR SFP+ Transceiver	46C3447	5053
Lenovo 10GBASE-LR SFP+ Transceiver (for X710-DA2)	00FE331	B0RJ
Lenovo 10Gb SFP+ LR Transceiver (10GBASE-LR) (for SFP+ EIOM)	90Y9412	A1PM
Optical cables for 10 GbE SFP+ SR transceivers		
Lenovo 0.5m LC-LC OM3 MMF Cable	00MN499	ASR5
Lenovo 1m LC-LC OM3 MMF Cable	00MN502	ASR6
Lenovo 3m LC-LC OM3 MMF Cable	00MN505	ASR7
Lenovo 5m LC-LC OM3 MMF Cable	00MN508	ASR8
Lenovo 10m LC-LC OM3 MMF Cable	00MN511	ASR9
Lenovo 15m LC-LC OM3 MMF Cable	00MN514	ASRA
Lenovo 25m LC-LC OM3 MMF Cable	00MN517	ASRB
Passive SFP+ DAC cables for 10 GbE SFP+ ports		
Lenovo 0.5m Passive SFP+ DAC Cable	00D6288	A3RG
Lenovo 1m Passive SFP+ DAC Cable	90Y9427	A1PH
Lenovo 1.5m Passive SFP+ DAC Cable	00AY764	A51N
Lenovo 2m Passive SFP+ DAC Cable	00AY765	A51P
Lenovo 3m Passive SFP+ DAC Cable	90Y9430	A1PJ
Lenovo 5m Passive SFP+ DAC Cable	90Y9433	A1PK
Lenovo 7m Passive SFP+ DAC Cable	00D6151	A3RH
Active SFP+ DAC cables for 10 GbE SFP+ ports		
Lenovo 1m Active DAC SFP+ Cable	00VX111	AT2R
Lenovo 3m Active DAC SFP+ Cable	00VX114	AT2S
Lenovo 5m Active DAC SFP+ Cable	00VX117	AT2T
SFP+ active optical cables for 10 GbE SFP+ ports		
Lenovo 1m SFP+ to SFP+ Active Optical Cable	00YL634	ATYX
Lenovo 3m SFP+ to SFP+ Active Optical Cable	00YL637	ATYY
Lenovo 5m SFP+ to SFP+ Active Optical Cable	00YL640	ATYZ
Lenovo 7m SFP+ to SFP+ Active Optical Cable	00YL643	ATZ0
Lenovo 15m SFP+ to SFP+ Active Optical Cable	00YL646	ATZ1
Lenovo 20m SFP+ to SFP+ Active Optical Cable	00YL649	ATZ2

The following table lists transceivers and cables for the 25 GbE SFP28 ports.

Table 18. Transceivers and cables for 25 GbE SFP28 ports

Description	Part number	Feature code
25 GbE SFP28 SR transceivers for 25 GbE SFP28 ports		
Lenovo 25GBASE-SR SFP28 Transceiver	7G17A03537	AV1B
Optical cables for 25 GbE SFP28 SR transceivers		
Lenovo 0.5m LC-LC OM3 MMF Cable	00MN499	ASR5
Lenovo 1m LC-LC OM3 MMF Cable	00MN502	ASR6
Lenovo 3m LC-LC OM3 MMF Cable	00MN505	ASR7
Lenovo 5m LC-LC OM3 MMF Cable	00MN508	ASR8
Lenovo 10m LC-LC OM3 MMF Cable	00MN511	ASR9
Lenovo 15m LC-LC OM3 MMF Cable	00MN514	ASRA
Lenovo 25m LC-LC OM3 MMF Cable	00MN517	ASRB
Passive copper cables for 25 GbE SFP28 ports		
Lenovo 1m Passive 25G SFP28 DAC Cable	7Z57A03557	AV1W
Lenovo 3m Passive 25G SFP28 DAC Cable	7Z57A03558	AV1X
Lenovo 5m Passive 25G SFP28 DAC Cable	7Z57A03559	AV1Y
Active optical cables for 25 GbE SFP28 ports		
Lenovo 3m 25G SFP28 Active Optical Cable	7Z57A03541	AV1F
Lenovo 5m 25G SFP28 Active Optical Cable	7Z57A03542	AV1G
Lenovo 10m 25G SFP28 Active Optical Cable	7Z57A03543	AV1H
Lenovo 15m 25G SFP28 Active Optical Cable	7Z57A03544	AV1J
Lenovo 20m 25G SFP28 Active Optical Cable	7Z57A03545	AV1K

The following table lists transceivers and cables for the 40 GbE QSFP+ ports.

Table 19. Transceivers and cables for 40 GbE QSFP+ ports

Description	Part number	Feature code
Optical transceivers for 40 GbE QSFP+ ports		
Lenovo 40GBASE-SR4 QSFP+ Transceiver	49Y7884	A1DR
Optical cables for 40 GbE QSFP+ SR4 transceivers		
Lenovo 10m QSFP+ MPO-MPO OM3 MMF Cable	00VX003	AT2U
Lenovo 30m QSFP+ MPO-MPO OM3 MMF Cable	00VX005	AT2V
Passive DAC cables for 40 GbE QSFP+ ports		
Lenovo 1m Passive QSFP+ DAC Cable	49Y7890	A1DP
Lenovo 3m Passive QSFP+ DAC Cable	49Y7891	A1DQ
Lenovo 5m Passive QSFP+ DAC Cable	00D5810	A2X8
Lenovo 7m Passive QSFP+ DAC Cable	00D5813	A2X9
Active optical cables for 40 GbE QSFP+ ports		
Lenovo 1m QSFP+ to QSFP+ Active Optical Cable	7Z57A04256	AX42
Lenovo 3m QSFP+ to QSFP+ Active Optical Cable	00YL652	ATZ3
Lenovo 5m QSFP+ to QSFP+ Active Optical Cable	00YL655	ATZ4
Lenovo 7m QSFP+ to QSFP+ Active Optical Cable	00YL658	ATZ5
Lenovo 15m QSFP+ to QSFP+ Active Optical Cable	00YL661	ATZ6
Lenovo 20m QSFP+ to QSFP+ Active Optical Cable	00YL664	ATZ7
25 GbE SFP28 cable adapter for 40 GbE QSFP+ ports		
Mellanox 100G QSFP28 to 25G SFP28 Cable Adapter	4G17A10853	B306

Power supplies and cables

The ThinkAgile HX Series enclosures ship with two power supplies. The following table lists the power supply options that are available for selection.

Table 20. Power supplies

Description	Feature code	Quantity
ThinkSystem D2 1100W Platinum PSU	AUZ0	2
ThinkSystem D2 1600W Platinum PSU	AUZ1	2
ThinkSystem D2 2000W Platinum PSU	AUZ2	2

Configuration notes:

- Two power supplies are required per system, and both power supplies must be identical.
- For N+N power redundancy, the power supplies should provide sufficient power without oversubscription for the selected node configuration. To ensure that the right power supply is chosen, you should always validate the certified node configuration using the latest version of the Lenovo Capacity Planner: http://datacentersupport.lenovo.com/us/en/solutions/lnvo-lcp
- The power supplies support AC (Worldwide) and HVDC (PRC only) power sources.

The ThinkAgile HX Series enclosures ship with or without power cords depending on the selected option. The following table lists the rack power cables and line cords that are available for selection.

Table 21. Power cables

Description	Part number	Feature code
Rack power cables		
1.0m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	00Y3043	A4VP
1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	39Y7937	6201
2.0m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08365	B0N4
2.0m, 13A/125V-10A/250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08369	6570
2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08366	6311
2.8m, 13A/125V-10A/250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08370	6400
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power Cable	39Y7938	6204
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	39Y7932	6263
4.3m, 13A/125V-10A/250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08371	6583
Line cords		
Argentina 2.8m, 10A/250V, C13 to IRAM 2073 Line Cord	39Y7930	6222
Argentina 4.3m, 10A/250V, C13 to IRAM 2073 Line Cord	81Y2384	6492
Australia/New Zealand 2.8m, 10A/250V, C13 to AS/NZS 3112 Line Cord	39Y7924	6211
Australia/New Zealand 4.3m, 10A/250V, C13 to AS/NZS 3112 Line Cord	81Y2383	6574
Brazil 2.8m, 10A/250V, C13 to NBR 14136 Line Cord	69Y1988	6532
Brazil 4.3m, 10A/250V, C13 to NBR14136 Line Cord	81Y2387	6404
China 2.8m, 10A/250V, C13 to GB 2099.1 Line Cord	39Y7928	6210
China 4.3m, 10A/250V, C13 to GB 2099.1 Line Cord	81Y2378	6580
Denmark 2.8m, 10A/250V, C13 to DK2-5a Line Cord	39Y7918	6213
Denmark 4.3m, 10A/250V, C13 to DK2-5a Line Cord	81Y2382	6575
Europe 2.8m, 10A/250V, C13 to CEE7-VII Line Cord	39Y7917	6212
Europe 4.3m, 10A/250V, C13 to CEE7-VII Line Cord	81Y2376	6572
India 2.8m, 10A/250V, C13 to IS 6538 Line Cord	39Y7927	6269
India 4.3m, 10A/250V, C13 to IS 6538 Line Cord	81Y2386	6567
Israel 2.8m, 10A/250V, C13 to SI 32 Line Cord	39Y7920	6218
Israel 4.3m, 10A/250V, C13 to SI 32 Line Cord	81Y2381	6579
Italy 2.8m, 10A/250V, C13 to CEI 23-16 Line Cord	39Y7921	6217
Italy 4.3m, 10A/250V, C13 to CEI 23-16 Line Cord	81Y2380	6493
Japan 2.8m, 12A/250V, C13 to JIS C-8303 Line Cord	4L67A08357	6533
Japan 4.3m, 12A/250V, C13 to JIS C-8303 Line Cord	4L67A08362	6495
Korea 2.8m, 12A/250V, C13 to KS C8305 Line Cord	39Y7925	6219
Korea 4.3m, 12A/250V, C13 to KS C8305 Line Cord	81Y2385	6494
South Africa 2.8m, 10A/250V, C13 to SABS 164 Line Cord	39Y7922	6214
South Africa 4.3m, 10A/250V, C13 to SABS 164 Line Cord	81Y2379	6576
Switzerland 2.8m, 10A/250V, C13 to SEV 1011-S24507 Line Cord	39Y7919	6216
Switzerland 4.3m, 10A/250V, C13 to SEV 1011-S24507 Line Cord	81Y2390	6578
Taiwan 2.8m, 10A/250V, C13 to CNS 10917-3 Line Cord	81Y2375	6317

Description	Part number	Feature code
Taiwan 4.3m, 10A/250V, C13 to CNS 10917-3 Line Cord	81Y2389	6531
United Kingdom 2.8m, 10A/250V, C13 to BS 1363/A Line Cord	39Y7923	6215
United Kingdom 4.3m, 10A/250V, C13 to BS 1363/A Line Cord	81Y2377	6577
United States 2.8m, 10A/250V, C13 to NEMA 6-15P Line Cord	46M2592	A1RF
United States 4.3m, 10A/250V, C13 to NEMA 6-15P Line Cord	4L67A08361	6373

Configuration note: If the 1100 W AC power supplies (feature code AUZ0) in the HX Series Enclosure are connected to a low-voltage power source (100 - 125 V), the only supported power cables are those that are rated above 10 A; cables that are rated at 10 A are not supported.

Rack installation

The HX Series enclosures ship with a rail kit listed in the following table.

Table 22. Rail kit

Description	Feature code	Quantity
ThinkSystem D2 Slide Rail	AUYC	1

The following table summarizes the rail kit features and specifications.

Table 23. Rail kit features and specifications summary

Feature	D2 Slide Rail
Rail length	853 mm (33.58 in.)
Rail type	Full-out slide (ball bearing)
Tool-less installation	Yes
In-rack server maintenance	Yes
1U PDU support	Yes
0U PDU support	No
Rack type	IBM and Lenovo 4-post, IEC standard-compliant
Mounting holes	Square or round
Mounting flange thickness	2 mm (0.08 in.) – 3.3 mm (0.13 in.)
Distance between front and rear mounting flanges^	609.6 mm (24 in.) – 812.8 mm (32 in.)

^ Measured when mounted on the rack, from the front surface of the front mounting flange to the rear most point of the rail.

Software

The ThinkAgile HX Certified Nodes support the following hypervisors that are installed on the 2x M.2 SSDs configured in a RAID-1 drive group:

- Nutanix Acropolis Hypervisor (AHV) (Bundled with AOS)
- VMware ESXi 6.5 Update 2
- VMware ESXi 6.5 Update 3
- VMware ESXi 6.7 Update 1
- VMware ESXi 6.7 Update 3
- VMware ESXi 7.0
- Microsoft Windows Server 2016 Datacenter (Hyper-V)

The following table lists the hypervisors available for selection.

Table 24. Hypervisors

Description	Feature code	Quantity
Nutanix SW Stack on Nutanix AHV (default selection)	B15S	1
Nutanix SW Stack on VMware ESXi 6.5	B15R	1
Nutanix SW Stack on VMware ESXi 6.7	B63T	1
Nutanix SW Stack on VMware ESXi 7.0	BFT6	1
Nutanix SW Stack on Hyper-V 2016	B63U	1

The ThinkAgile HX Certified Nodes are shipped with the Nutanix software preloaded. Nutanix software licenses and software support are not included. Customers can use the existing Nutanix term-based software licenses and active support contracts, or they can purchase term-based software licenses and support contracts from Nutanix.

Configuration notes:

- The HX Certified Nodes support the Nutanix Software Pro and Ultimate editions; the Starter edition is not supported.
- The HX3721 Certified Nodes (Xeon SP Gen 2) can be deployed as a cluster of 3 or more nodes (AOS 5.11 or later).
- The HX Certified Nodes support firmware updates from Nutanix Prism with the ThinkAgile HX Lifecycle Manager (UEFI, XCC, drives, network adapters, and SAS HBAs).

Systems management

The ThinkAgile HX Certified Nodes support the following systems management tools:

- Lenovo XClarity Controller
- Lenovo XClarity Administrator and XClarity Pro
- Lenovo XClarity Energy Manager

Lenovo XClarity Controller

The ThinkAgile HX Certified Nodes contain Lenovo XClarity Controller (XCC) Enterprise, which provides advanced service-processor control, monitoring, and alerting functions.

XClarity Controller Enterprise offers the following capabilities for the HX Certified Nodes:

- Gathering and viewing system information and inventory
- Monitoring system status and health
- Alerting and notifications
- Event logging
- Syslog alerting
- Configuring security
- Updating system firmware
- Real-time power usage monitoring
- Displaying graphics for real-time and historical power usage data and temperature
- Capping power usage
- Remotely controlling power (Power on, Power off, Restart)

The XClarity Controller provides remote server management through the following interfaces:

- Intelligent Platform Management Interface (IPMI) Version 2.0
- Simple Network Management Protocol (SNMP) Version 3
- Common Information Model (CIM)
- Data Center Manageability Interface (DCMI) Version 1.5
- Redfish REpresentational State Transfer (REST) API
- Web browser with HTML5 support
- Command-line interface
- Virtual Operator Panel with XClarity Mobile App via the front USB port with XClarity Controller access

Virtual Operator Panel provides quick access to system status, firmware, network, health, and alerts information. With proper authentication, it also allows to configure systems management and network settings and to control system power (Power on, Power off, Restart). The Virtual Operator Panel can be accessed from the XClarity Mobile App running on the Android or iOS mobile device that is connected to the front USB port with XClarity Controller access (See Components and connectors).

Lenovo XClarity Administrator and XClarity Pro

Lenovo XClarity Administrator is a centralized systems management solution that helps administrators deliver infrastructure faster. This solution integrates easily with Lenovo x86 servers, appliances, certified nodes, Top-of-Rack Ethernet switches, and storage systems, providing automated agent-less discovery, inventory, monitoring, and alerts across multiple systems. In addition, some managed endpoints support firmware updates and configuration management.

Lenovo XClarity Administrator is an optional software component for the ThinkAgile HX Certified Nodes which can be used to manage firmware upgrades outside of the Nutanix Prism software.

Notes:

- Lenovo XClarity Administrator can be downloaded and used at no charge to discover and monitor HX Certified Nodes and manage firmware upgrades for them.
- Optional Lenovo XClarity Pro subscription license that can be selected in the configurator provides software support for XClarity Administrator for the duration of the selected warranty period. If Lenovo XClarity software support is required, the XClarity Pro option must be selected.

The XClarity Pro license can be added during the initial purchase by selecting one of the software options listed in the following table.

Table 25. XClarity Pro selection options

Description	Feature code	Quantity (per node)
XClarity Pro	B0W3	1

Also, XClarity Pro licenses can be added after the initial deployment by purchasing one of the software license options listed in the following table.

Table 26. Lenovo XClarity Pro license options

Part number	Feature code	Description	Quantity (per node)
00MT201	1339	Lenovo XClarity Pro, per Managed Endpoint w/1 Yr SW S&S	1
00MT202	1340	Lenovo XClarity Pro, per Managed Endpoint w/3 Yr SW S&S	1
00MT203	1341	Lenovo XClarity Pro, per Managed Endpoint w/5 Yr SW S&S	1

Lenovo XClarity Administrator is available from Lenovo at no charge, and it offers the following features:

- Auto-discovery and monitoring of HX Certified Nodes
- Firmware updates and compliance enforcement
- External alerts and notifications via SNMP traps, syslog remote logging, and e-mail
- Secure connections to managed endpoints
- NIST 800-131A or FIPS 140-2 compliant cryptographic standards between the management solution and managed endpoints
- Integration into existing higher-level management systems such as cloud automation and orchestration tools through REST APIs, providing extensive external visibility and control over hardware resources
- An intuitive, easy-to-use GUI
- Scripting support with Windows PowerShell, providing command-line visibility and control over hardware resources

For more information, refer to the Lenovo XClarity Administrator Product Guide:
http://lenovopress.com/tips1200

Lenovo XClarity Energy Manager

Lenovo XClarity Energy Manager provides a stand-alone, web-based agent-less power management console that provides real time data and enables customers to observe, plan and manage power and cooling for Lenovo servers and appliances. Using built-in intelligence, XClarity Energy Manager identifies power consumption trends and ideal power settings, and it performs cooling analysis so that customers can define and optimize their power-saving policies.

Lenovo XClarity Energy Manager offers the following capabilities:

- Monitors room, row, rack, and device levels in the data center
- Reports vital system information, such as power, temperature and resource utilization
- Monitors inlet temperature to locate hot spots, reducing the risk of data or device damage
- Provides finely-grained controls to limit platform power in compliance with IT policy
- Generates alerts when a user-defined threshold is reached

Lenovo XClarity Energy Manager license is included in the XClarity Controller Enterprise upgrade.

For more information, refer to the Lenovo XClarity Energy Manager web page:
http://datacentersupport.lenovo.com/us/en/solutions/lnvo-lxem

Physical specifications

The ThinkAgile HX3721 Certified Nodes have the following dimensions and weight (approximate):

- Enclosure
  - Height: 87 mm (3.4 in.)
  - Width: 448 mm (17.6 in.)
  - Depth: 834 mm (32.8 in.)
  - Weight (maximum, with four nodes): 55.0 kg (121.3 lb)
- Node
  - Height: 41 mm (1.6 in.)
  - Width: 222 mm (8.7 in.)
  - Depth: 562 mm (22.1 in.)
  - Weight (maximum): 7.5 kg (16.5 lb)

Operating environment

The ThinkAgile HX Certified Nodes comply with ASHRAE class A2 specifications. The node performance might be impacted when the operating temperature is outside the ASHRAE A2 specifications. Depending on the hardware configuration, some HX3721 Certified Nodes comply with ASHRAE class A3 and class A4 specifications. To comply with ASHRAE class A3 and class A4 specifications, the nodes must meet the following configuration requirement: Processors with TDP more than or equal to 125 W not installed.

The ThinkAgile HX Certified Nodes are supported in the following environment:

- Air temperature:
  - Operating:
    - ASHRAE Class A4: 5 °C - 45 °C (41 °F - 113 °F); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 °C for every 125-m (410-ft) increase in altitude
    - ASHRAE Class A3: 5 °C - 40 °C (41 °F - 104 °F); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 °C for every 175-m (574-ft) increase in altitude
    - ASHRAE Class A2: 10 °C - 35 °C (50 °F - 95 °F); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 °C for every 300-m (984-ft) increase in altitude
  - Non-operating: 5 °C - 45 °C (41 °F - 113 °F)
  - Storage: -40 °C - +60 °C (-40 °F - 140 °F)
- Maximum altitude: 3,050 m (10,000 ft)
- Humidity:
  - Operating:
    - ASHRAE Class A4: 8% - 90% (non-condensing); maximum dew point: 24 °C (75 °F)
    - ASHRAE Class A3: 8% - 85% (non-condensing); maximum dew point: 24 °C (75 °F)
    - ASHRAE Class A2: 8% - 80% (non-condensing); maximum dew point: 21 °C (70 °F)
  - Storage: 8% - 90% (non-condensing)
- Electrical:
  - 100 - 127 (nominal) V AC; 50 Hz / 60 Hz (1100 W power supplies only)
  - 200 - 240 (nominal) V AC; 50 Hz / 60 Hz
  - 180 - 300 V DC (supported in PRC only)
- Acoustics (maximum configuration, operating): 6.8 bels
- Vibration:
  - Operating: 0.21 G rms at 5 Hz to 500 Hz for 15 minutes across 3 axes
  - Non-operating: 1.04 G rms at 2 Hz to 200 Hz for 15 minutes across 6 surfaces
- Shock:
  - Operating: 15 G for 3 milliseconds in each direction (positive and negative X, Y, and Z axes)
  - Non-operating:
    - 12 kg - 22 kg: 50 G for 152 in./sec velocity change across 6 surfaces
    - 23 kg - 31 kg: 35 G for 152 in./sec velocity change across 6 surfaces

The following table lists the maximum system power load, rated inlet current, and system heat output based on the power supply and source voltage.

Table 27. Rated system power, inlet current, and system heat output

Power supply	Source voltage	Maximum power load per system (two power supplies)	Rated current per inlet	System heat output
1100 W Platinum	100 - 127 V AC	1382 W	12 A	4715 BTU/hour
	200 - 240 V AC	1408 W	6 A	4804 BTU/hour
	180 - 300 V DC	1408 W	5.1 A	4804 BTU/hour
1600 W Platinum	200 - 240 V AC	2068 W	8.7 A	7056 BTU/hour
	180 - 300 V DC	2024 W	7.3 A	6906 BTU/hour
2000 W Platinum	200 - 240 V AC	2610 W	11 A	8905 BTU/hour
	180 - 300 V DC	2597 W	9.2 A	8861 BTU/hour

Regulatory compliance

The ThinkAgile HX3721 Certified Nodes conform to the following regulations:

- United States: FCC Part 15, Class A; UL 60950-1
- Canada: ICES-003/NMB-03, Class A; CAN/CSA-C22.2 60950-1
- Mexico: NOM-19
- Argentina: IEC60950-1
- European Union: CE Mark (EN55022 Class A, IEC/EN60950-1, EN55024, EN61000-3-2, EN61000-3-3)
- Germany: TUV-GS (IEC/EN60950-1, EK1-ITB2000)
- Russia, Kazakhstan, Belarus: EAC (TR CU 004/2011, TR CU 020/2011)
- China: CCC GB4943.1, GB9254 Class A, GB17625.1
- India: BIS
- Japan: VCCI, Class A
- Taiwan: BSMI CNS13438, Class A; CNS14336-1
- Korea: KN22, Class A; KN24
- Australia/New Zealand: AS/NZS CISPR 22 Class A
- Reduction of Hazardous Substances (ROHS)
- Energy Star 3.0

Warranty and support

The ThinkAgile HX Certified Nodes can be configured with a one- (PRC only), three-, four, or five-year hardware warranty and various levels of service coverage with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.

The base warranty provides 9x5 Next Business Day response with parts delivered. Lenovo's additional support services provide a sophisticated, unified support structure for a customer's data center, with an experience consistently ranked number one in customer satisfaction worldwide.

The following Lenovo support services are available for selection:

- **Warranty service level upgrades (Preconfigured Support)** are available to meet the on-site response time targets that match the criticality of customer's systems:
  - 1 (PRC only), 3, 4, or 5 years of service coverage.
  - 1-year or 2-year post-warranty extensions.
  - **Foundation Service:** 9x5 service coverage with next business day onsite response, with optional YourDrive YourData.
  - **Essential Service:** 24x7 service coverage with 4-hour onsite response or 24-hour committed repair (available only in select regions), bundled with YourDrive YourData.
  - **Advanced Service:** 24x7 service coverage with 2-hour onsite response or 6-hour committed repair (available only in select regions), bundled with YourDrive YourData.
- **Managed Services**
  Lenovo Managed Services provide continuous 24x7 remote monitoring (plus 24x7 call center availability) and proactive management of a customer's data center using state of the art tools, systems, and practices by a team of highly skilled and experienced Lenovo services professionals.

  Quarterly reviews check error logs, verify firmware and operating system device driver levels, and software as needed. Lenovo will also maintain records of latest patches, critical updates, and firmware levels, to ensure customer's systems are providing business value through optimized performance.
- **Technical Account Management (TAM)**
  A Lenovo Technical Account Manager helps customers optimize operations of their data centers based on a deep understanding of customer's business. Customers gain direct access to a Lenovo TAM, who serves as their single point of contact to expedite service requests, provide status updates, and furnish reports to track incidents over time. Also, a TAM helps proactively make service recommendations and manage service relationship with Lenovo to make certain that customer's needs are met.
- **Enterprise Software Support**
  Lenovo Enterprise Software Support is an additional support service that provides customers with software support on Microsoft, Red Hat, SUSE, and VMWare applications and systems. Around the clock availability for critical problems plus unlimited calls and incidents helps customers address challenges fast, without incremental costs. Support staff can answer troubleshooting and diagnostic questions, address product compatibility and interoperability issues, isolate causes of problems, report defects to software vendors, and more.
- **YourDrive YourData**
  Lenovo's YourDrive YourData service is a multi-drive retention offering that ensures that customer's data is always under their control, regardless of the number of drives that are installed in their Lenovo server. In the unlikely event of a drive failure, customers retain possession of their drive while Lenovo replaces the failed drive part. Customer's data stays safely on customer premises, in their hands. The YourDrive YourData service can be purchased in convenient bundles with Foundation, Essential, or Advanced services.
- **Health Check**
  Having a trusted partner who can perform regular and detailed health checks is central to maintaining efficiency and ensuring that customer systems and business are always running at their best. Health Check supports Lenovo-branded server, storage, and networking devices, as well as select Lenovo-supported products from other vendors that are sold by Lenovo or a Lenovo-Authorized Reseller.

Some regions might have different warranty terms and conditions than the standard warranty. This is due to local business practices or laws in the specific region. Local service teams can assist in explaining region-specific terms when needed. Examples of region-specific warranty terms are second or longer business day parts delivery or parts-only base warranty.

If warranty terms and conditions include onsite labor for repair or replacement of parts, Lenovo will dispatch a service technician to the customer site to perform the replacement. Onsite labor under base warranty is limited to labor for replacement of parts that have been determined to be field-replaceable units (FRUs). Parts that are determined to be customer-replaceable units (CRUs) do not include onsite labor under base warranty.

If warranty terms include parts-only base warranty, Lenovo is responsible for delivering only replacement parts that are under base warranty (including FRUs) that will be sent to a requested location for self-service. Parts-only service does not include a service technician being dispatched onsite. Parts must be changed at customer's own cost and labor and defective parts must be returned following the instructions supplied with the spare parts.

Lenovo support services are region-specific. Not all support services are available in every region. For information about Lenovo support services that are available in a specific region, refer to the following resources:

- Service part numbers in Data Center Solution Configurator (DCSC):
  http://dcsc.lenovo.com/#/services
- Lenovo Services Availability Locator
  https://lenovolocator.com/

For service definitions, region-specific details, and service limitations, refer to the following documents:

- Lenovo Statement of Limited Warranty for Infrastructure Solutions Group (ISG) Servers and System Storage
  http://pcsupport.lenovo.com/us/en/solutions/ht503310
- Lenovo Data Center Services Agreement
  http://support.lenovo.com/us/en/solutions/ht116628

Deployment services

The following optional Lenovo Professional Services are available for the ThinkAgile HX Certified Nodes to get customers up and running quickly:

- Basic Hardware Installation Services
  - Unpacking and inspecting the systems
  - Installing options and mounting the systems in a rack cabinet
  - Connecting the systems to electrical power and network
  - Checking and updating firmware to the latest levels
  - Verifying operations
  - Disposal of the packaging materials (within the customer site)
- Nutanix deployment services - Base (per node)
  - Conducting remote preparation and planning
  - Verifying firmware versions and performing firmware updates, if needed
  - Installing and configuring hypervisor and Nutanix controller VM
  - Creating Nutanix cluster
  - Configuring storage
  - Configuring administrative features
- Nutanix deployment services - Advanced (per cluster)
  - Configuring and integrating a virtualized environment:
    - Nutanix containers and Acropolis (AHV) cluster; or
    - VMware vCenter Server and vSphere cluster; or
    - Microsoft Hyper-V cluster and System Center Virtual Machine Manager
  - Transferring knowledge
- Nutanix deployment services - Advanced with XClarity (per cluster)
  - Nutanix deployment services - Advanced
  - Installing Lenovo XClarity
  - Configuring Lenovo XClarity network settings and performing discovery and inventory
  - Installing system updates

Rack cabinets

The following table lists the supported rack cabinets.

Table 28. Rack cabinets

Part number	Description
7D2B0001WW / 7D2N0001WW	12U 1200mm Deep Micro Datacenter Rack
7D2C0001WW / 7D2P0001WW	18U 1200mm Deep Micro Datacenter Rack
93072RX	25U Standard Rack (1000mm)
93072PX	25U Static S2 Standard Rack (1000mm)
7D6DA007WW	ThinkSystem 42U Onyx Primary Heavy Duty Rack Cabinet (1200mm)
7D6DA008WW	ThinkSystem 42U Pearl Primary Heavy Duty Rack Cabinet (1200mm)
1410-O42	Lenovo EveryScale 42U Onyx Heavy Duty Rack Cabinet
1410-P42	Lenovo EveryScale 42U Pearl Heavy Duty Rack Cabinet
93604PX	42U 1200mm Deep Dynamic Rack
93614PX	42U 1200mm Deep Static Rack
93634PX	42U 1100mm Dynamic Rack
93634EX	42U 1100mm Dynamic Expansion Rack
93074RX	42U Standard Rack (1000mm)
7D6EA009WW	ThinkSystem 48U Onyx Primary Heavy Duty Rack Cabinet (1200mm)
7D6EA00AWW	ThinkSystem 48U Pearl Primary Heavy Duty Rack Cabinet (1200mm)
1410-O48	Lenovo EveryScale 48U Onyx Heavy Duty Rack Cabinet
1410-P48	Lenovo EveryScale 48U Pearl Heavy Duty Rack Cabinet

For specifications about these racks, see the Lenovo Rack Cabinet Reference, available from:
https://lenovopress.com/lp1287-lenovo-rack-cabinet-reference

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

Power distribution units

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

Table 29. Power distribution units

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
0U Basic PDUs															
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	N	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															
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

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
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															
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
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
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
4PU7A77468	BLC5	1U 12 C19/C13 switched and monitored 32A 3P WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A81118	BNDW	1U 18 C19/C13 switched and monitored 48A 3P WYE PDU - CE	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
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 Enterprise PDU Plus Module (WW)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8941	6010	DPI C13 Enterprise PDU Module (WW)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U C19 Enterprise PDUs (6x IEC 320 C19 outlets)															
39Y8948	6060	DPI C19 Enterprise PDU Module (WW)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8923	6061	DPI Three-phase 60A/208V C19 Enterprise PDU (US)	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 Single-phase 30A/120V Front-end PDU (US)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8939	6003	DPI Single-phase 30A/208V Front-end PDU (US)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8934	6005	DPI Single-phase 32A/230V Front-end PDU (International)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39Y8940	6004	DPI Single-phase 60A/208V Front-end PDU (US)	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N
39Y8935	6006	DPI Single-phase 63A/230V Front-end PDU (International)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1U NEMA PDUs (6x NEMA 5-15R outlets)															

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
39Y8905	5900	DPI 100-127V NEMA PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Line cords for 1U PDUs that ship without a line cord															
40K9611	6504	4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9612	6502	4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9613	6503	4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9614	6500	4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9615	6501	4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	N	N	Y	N	N	N	Y	N	N	Y	Y	Y	N
40K9617	6505	4.3m, 32A/230V, Souriau UTG Female to AS/NZ 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

Uninterruptible power supply units

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

Table 30. Uninterruptible power supply units

Part number	Description
55941AX	RT1.5kVA 2U Rack or Tower UPS (100-125VAC)
55941KX	RT1.5kVA 2U Rack or Tower UPS (200-240VAC)
55942AX	RT2.2kVA 2U Rack or Tower UPS (100-125VAC)
55942KX	RT2.2kVA 2U Rack or Tower UPS (200-240VAC)
55943AX	RT3kVA 2U Rack or Tower UPS (100-125VAC)
55943KX	RT3kVA 2U Rack or Tower UPS (200-240VAC)
55945KX	RT5kVA 3U Rack or Tower UPS (200-240VAC)
55946KX	RT6kVA 3U Rack or Tower UPS (200-240VAC)
55948KX	RT8kVA 6U Rack or Tower UPS (200-240VAC)
55949KX	RT11kVA 6U Rack or Tower UPS (200-240VAC)
55948PX	RT8kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)
55949PX	RT11kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)
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)

† 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

Lenovo Financial Services

Lenovo Financial Services reinforces Lenovo's commitment to deliver pioneering products and services that are recognized for their quality, excellence, and trustworthiness. Lenovo Financial Services offers financing solutions and services that complement your technology solution anywhere in the world.

We are dedicated to delivering a positive finance experience for customers like you who want to maximize your purchase power by obtaining the technology you need today, protect against technology obsolescence, and preserve your capital for other uses.

We work with businesses, non-profit organizations, governments and educational institutions to finance their entire technology solution. We focus on making it easy to do business with us. Our highly experienced team of finance professionals operates in a work culture that emphasizes the importance of providing outstanding customer service. Our systems, processes and flexible policies support our goal of providing customers with a positive experience.

We finance your entire solution. Unlike others, we allow you to bundle everything you need from hardware and software to service contracts, installation costs, training fees, and sales tax. If you decide weeks or months later to add to your solution, we can consolidate everything into a single invoice.

Our Premier Client services provide large accounts with special handling services to ensure these complex transactions are serviced properly. As a premier client, you have a dedicated finance specialist who manages your account through its life, from first invoice through asset return or purchase. This specialist develops an in-depth understanding of your invoice and payment requirements. For you, this dedication provides a high-quality, easy, and positive financing experience.

For your region-specific offers, please ask your Lenovo sales representative or your technology provider about the use of Lenovo Financial Services. For more information, see the following Lenovo website:

https://www.lenovo.com/us/en/landingpage/lenovo-financial-services/

Related publications and links

For more information, see these resources:

- Lenovo ThinkAgile HX Series
  https://www.lenovo.com/us/en/data-center/software-defined-infrastructure/ThinkAgile-HX-Series/p/WMD00000326
- ThinkAgile HX Series Comparison reference
  https://lenovopress.com/lp1336-thinkagile-hx-series-comparison
- Interactive 3D Tour of ThinkAgile HX Series offerings:
  https://lenovopress.com/lp0454-lenovo-thinkagile-hx-series-interactive-3d-tour
- Lenovo Data Center Solution Configurator (DCSC):
  http://dcsc.lenovo.com
- Lenovo ThinkAgile product publications (user manuals):
  https://thinkagile.lenovofiles.com/help/index.jsp
- Nutanix documentation
  https://my.nutanix.com/
- Lenovo ThinkAgile HX Series Best Recipes
  http://datacentersupport.lenovo.com/us/en/solutions/ht505413
- Lenovo Data Center Support
  http://datacentersupport.lenovo.com

Related product families

Product families related to this document are the following:

- Hyperconverged Infrastructure
- Hyperconverged Infrastructure
- Nutanix Alliance
- ThinkAgile HX Series for Nutanix

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