Lenovo ThinkAgile HX650a V4 Hyperconverged System
Product Guide

The Lenovo ThinkAgile HX650a V4 system is a 2-socket 2U system that features the 6th Generation Intel Xeon Scalable processors (formerly code named "Granite Rapids"). Intel® Xeon® 6 processors deliver more cores, higher memory bandwidth, and enhanced AI acceleration in every core. The ThinkAgile HX650a V4 model is designed for deploying industry-leading hyperconvergence software from Nutanix on Lenovo enterprise platforms. Nutanix brings the benefits of cloud-scale technologies to enterprise applications through enterprise storage, data protection, infrastructure resilience, management and analytics, and security.

The 2U system is available as:

- HX650a V4 system for high performance GPU intensive workloads, AI Inferencing, Private\Hybrid Clouds.

ThinkAgile HX650a V4 system delivers a fully validated and integrated Lenovo hardware and firmware, certified and preloaded with licensed Nutanix software. They also include ThinkAgile Premier support with one single point of contact for support of the hardware and software.
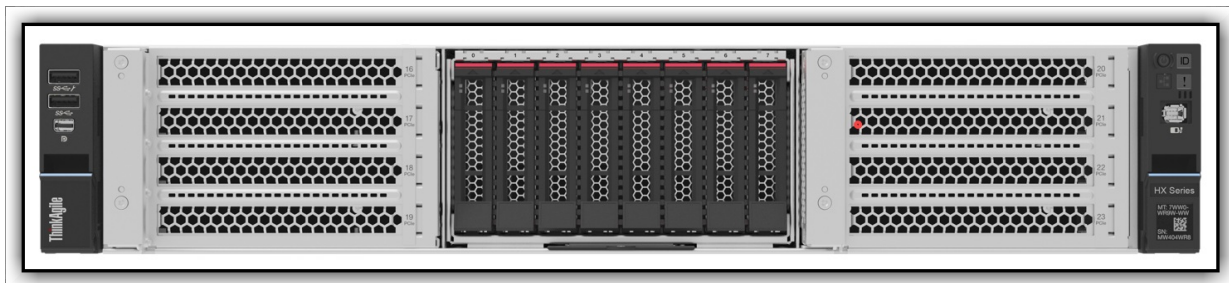

Figure 1. Lenovo ThinkAgile HX650a V4 system with 2.5-inch drive bays

Did you know?

The ThinkAgile HX650a V4 system are built on the Lenovo ThinkSystem SR650a V4 server that features enterprise-class reliability, management, and security.

The ThinkAgile HX650a V4 server supports four double-wide GPUs at the front of the server, including the NVIDIA H100 NVL GPUs. The configuration of the slots means that two GPUs can be connected using high-speed NVLink connections. Such connectivity is ideal for demanding workloads such as AI training and inference.

The HX650 V4 Systems comes paired with Premier Support in supported countries. It offers a single point of support for quick 24/7 problem reporting and resolution.

Key features

Combining performance and flexibility, the ThinkAgile HX650a V4 is a great choice for enterprises of all sizes. The system offers a broad selection of processors, memory, drives and GPU's. The ThinkAgile HX650a V4 offers high performance features that industries such as finance, healthcare and telco need. Outstanding reliability, availability, and serviceability (RAS) and high-efficiency design can improve your business environment and can help save operational costs.

ThinkAgile HX features

The ThinkAgile HX650a V4 system offer the following key features:

- Factory-integrated, pre-configured ready-to-go integrated systems built on proven and reliable Lenovo ThinkSystem servers that provide compute power for a variety of workloads and applications and powered by industry's most feature-rich hyperconverged infrastructure software from Nutanix.
- Provide quick and convenient path to implement a hyperconverged solution powered by Nutanix with "one stop shop" and a single point of contact provided by Lenovo for purchasing, deploying, and supporting the solution.
- Meet various workload demands with performance-optimized all NVMe storage configurations
- Deliver fully validated and integrated hardware and firmware that is certified with Nutanix software.
- Three and Five-year hardware warranty, bundled with Premier Support in supported countries that provides a 24x7 Single Point of Support, problem reporting and resolution.
- Offer Lenovo deployment services to get customers up and running quickly.
- Built on proven and reliable Lenovo ThinkSystem servers that provide compute power for a variety of workloads and applications.
- Preloaded with Nutanix software and ready for out-of-box deployment (Note: software licenses are optional and are recommended to be purchased from Lenovo for a smoother experience).
- 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 ThinkAgile HX650a V4 delivers the following key features:

- Mission-critical performance and ultra-reliability of Lenovo's platforms married with the dramatic efficiency and cost savings of the industry-leading Nutanix Enterprise Cloud OS .
- 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, which 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.

Hardware features

The HX systems are based on the SR650a V4 and have the following hardware features:

Scalability and performance

The HX650a V4 offer numerous features to boost performance, improve scalability and reduce costs:

- Supports two Intel Xeon 6700-series or 6500-series processors with Performance-cores (P-cores)
    - Up to 86 cores and 172 threads
    - Core speeds of up to 4 GHz
    - TDP ratings of up to 350 W

- Support for DDR5 memory DIMMs to maximize the performance of the memory subsystem:
    - Up to 32 DDR5 memory DIMMs, 16 DIMMs per processor
    - 8 memory channels per processor (2 DIMMs per channel)
    - Supports 1 DIMM per channel operating at 6400 MHz
    - Supports 2 DIMMs per channel operating at 5200 MHz
    - Supports 1 MRDIMM per channel operating at 8000 MHz
    - Using 256GB 3D RDIMMs, the server supports up to 8TB of system memory

- Support for MRDIMMs for increased memory bandwidth with memory bus speeds of up to 8000 MHz.

- Supports up to 8x single-width GPUs or 4x double-wide GPUs, for substantial processing power in a 2U system.

- Supports up to 8x 2.5-inch NVMe hot-swap drive bays.

- Supports 8x NVMe drives without oversubscription of PCIe lanes (1:1 connectivity). The use of NVMe drives maximizes drive I/O performance, in terms of throughput and latency.

- M.2 RAID Boot Adapters configured in RAID-1 which enables two NVMe M.2 drives to be configured as a redundant pair.

- Up to 8x PCIe slots (front accessible) for GPUs and 6x PCIe slots (rear accessible) for other PCIe adapters, plus two slots dedicated to OCP 3.0 adapters.

- The server has up to two dedicated industry-standard OCP 3.0 slots supporting a variety of Ethernet network adapters. A simple-swap mechanism with a thumbscrew and pull-tab enables tool-less installation and removal of the adapter. The adapter supports shared BMC network sideband connectivity to enable out-of-band systems management.

- The server offers PCI Express 5.0 I/O expansion capabilities that doubles the theoretical maximum bandwidth of PCIe 4.0 (32GT/s in each direction for PCIe Gen 5, compared to 16 GT/s with PCIe Gen 4 and 8 GT/s with PCIe Gen 3). A PCIe 5.0 x16 slot provides 128 GB/s bandwidth, enough to support a dual-port 200GbE network connection.

Availability and serviceability

The HX650a V4 provide many features to simplify serviceability and increase system uptime:

- M.2 boot adapters support RAID-1 which can enable two M.2 drives to be configured as a redundant pair.
- The server has up to two hot-swap redundant power supplies and up to six hot-swap redundant fans to provide availability for business-critical applications.
- The light path diagnostics feature uses LEDs to lead the technician to failed (or failing) components, which simplifies servicing, speeds up problem resolution, and helps improve system availability.
- Supports a new dedicated Firmware and Root of Trust Security Module that stores all system firmware settings, making it easier to transfer customer settings in the event of a system board replacement, while still maintaining data security
- Solid-state drives (SSDs) offer more reliability and performance than traditional mechanical HDDs for greater uptime.
- Proactive Platform Alerts (including PFA and SMART alerts): Processors, voltage regulators, memory, internal storage (NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, server ambient and subcomponent temperatures. Alerts can be surfaced through the XClarity Controller to managers such as Lenovo XClarity Administrator, VMware vCenter, and Microsoft System Center. These proactive alerts let you take appropriate actions in advance of possible failure, thereby increasing server uptime and application availability.
- The built-in XClarity Controller 3 continuously monitors system parameters, triggers alerts, and performs recovery actions in case of failures to minimize downtime.
- Built-in diagnostics in UEFI, using Lenovo XClarity Provisioning Manager, speed up troubleshooting tasks to reduce service time.
- Lenovo XClarity Provisioning Manager supports diagnostics and can save service data to a USB key drive or remote CIFS share folder for troubleshooting and reduce service time.
- Auto restart in the event of a momentary loss of AC power (based on power policy setting in the XClarity Controller service processor)
- Offers a diagnostics port on the front of the server to allow you to attach an external diagnostics handset for enhanced systems management capabilities.
- Support for the XClarity Administrator Mobile app running on a supported smartphone or tablet and connected to the server through the service-enabled USB port, enables additional local systems management functions.
- Three-year customer-replaceable unit and onsite limited warranty (varies by geography), 9 x 5 next business day. Optional service upgrades are available.

Manageability and security

Systems management features simplify local and remote management of the HX650a V4:

- The server includes XClarity Controller 3 (XCC3) to monitor server availability. Included upgrade to XCC3 Premier to provide remote control (keyboard video mouse) functions, support for the mounting of remote media files (ISO and IMG image files), boot capture and power capping. XCC3 Premier also offers additional features such as Neighbor Groups, System Guard, a CNSA-compliant security mode, a FIPS 140-3-compliant mode, and enhanced NIST 800-193 support.
- Dedicated Ethernet port at the rear of the server for remote management (BMC management).
- Lenovo XClarity Administrator offers comprehensive hardware management tools that help to increase uptime, reduce costs, and improve productivity through advanced server management capabilities.
- UEFI-based Lenovo XClarity Provisioning Manager, accessible from F1 during boot, provides system inventory information, graphical UEFI Setup, platform update function, operating system installation function, and diagnostic functions.
- Support for Lenovo XClarity Energy Manager, which captures real-time power and temperature data

from the server and provides automated controls to lower energy costs.

- An integrated industry-standard Unified Extensible Firmware Interface (UEFI) enables improved setup, configuration, and updates, and simplifies error handling.
- Support for industry standard management protocols, IPMI 2.0, SNMP 3.0, Redfish REST API, serial console via IPMI
- An integrated hardware Trusted Platform Module (TPM) supporting TPM 2.0 enables advanced cryptographic functionality, such as digital signatures and remote attestation.
- Administrator and power-on passwords help protect from unauthorized access to the server.
- Supports Secure Boot to ensure only a digitally signed operating system can be used. Supported with SSDs, as well as M.2 drives.
- Industry-standard Advanced Encryption Standard (AES) NI support for faster, stronger encryption.
- Intel Execute Disable Bit functionality can prevent certain classes of malicious buffer overflow attacks when combined with a supported operating system.
- Intel Trusted Execution Technology provides enhanced security through hardware-based resistance to malicious software attacks, allowing an application to run in its own isolated space, protected from all other software running on a system.
- Additional physical security features are an available chassis intrusion switch and available lockable front bezel.

Energy efficiency

The HX650a V4 offer the following energy-efficiency features to save energy, reduce operational costs, and increase energy availability:

- The server supports advanced Lenovo Neptune Core direct-water cooling (DWC) capabilities, where heat from key components is removed from the rack and the data center using an open loop and coolant distribution units, resulting in lower energy costs:
    - Processor Neptune Core Module uses liquid cooling to remove heat from the processors
- Energy-efficient system board components help lower operational costs.
- Carbon offset is available at click of button. You can project the carbon emissions per device for an average lifecycle (up to 5 years). That information is available **here**
- High-efficiency power supplies with 80 PLUS Platinum and Titanium certifications
- Solid-state drives (SSDs) consume as much as 80% less power than traditional spinning 2.5-inch HDDs.
- Support for Lenovo XClarity Energy Manager provides advanced data center power notification, analysis, and policy-based management to help achieve lower heat output and reduced cooling needs.
- The server uses hexagonal ventilation holes, which can be grouped more densely than round holes, providing more efficient airflow through the system and thus keeping your system cooler.

Components and connectors

The ThinkAgile HX650a V4 system are based on the ThinkSystem SR650a V4 server.

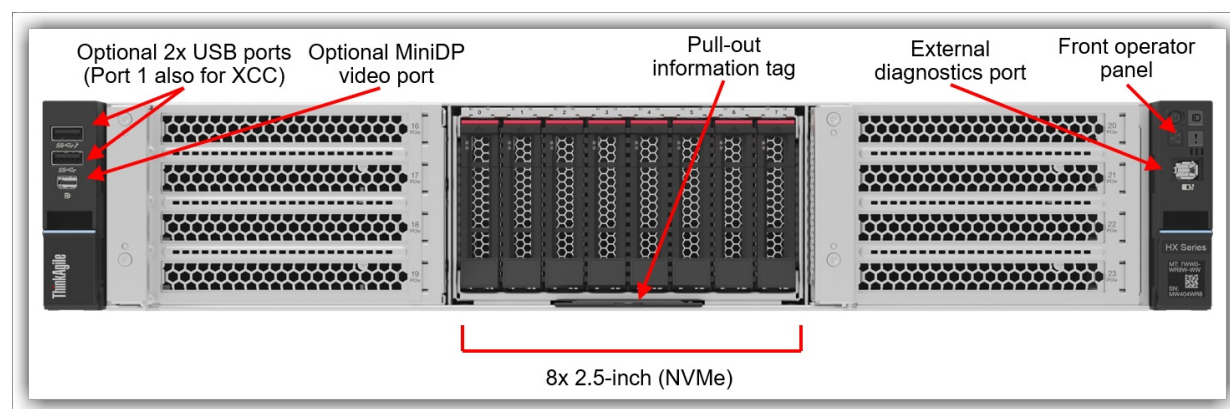The following figure shows the front of the HX650a V4 with 2.5-inch drives.

Figure 2. Front view with 2.5-inch drives

The following figure shows the components visible from the rear of the system. The figure shows one configuration, with six PCIe slots.
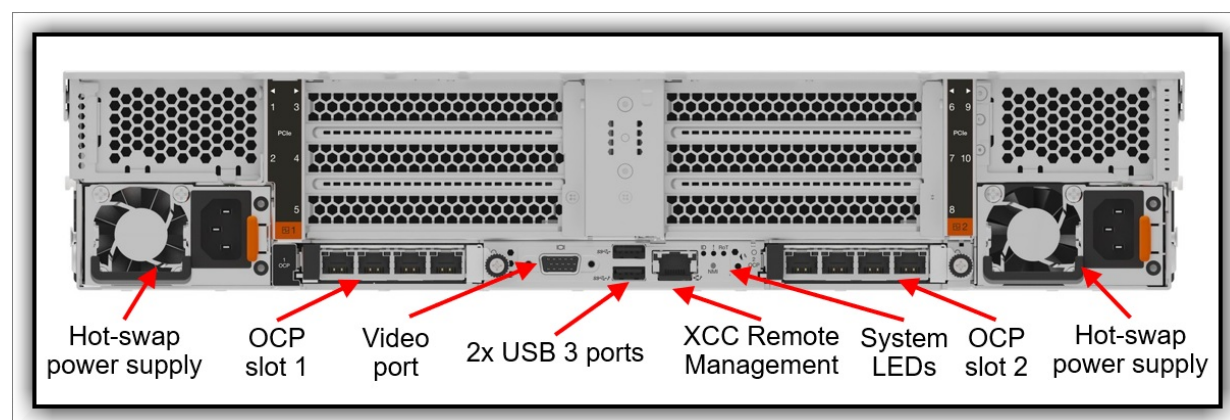

Figure 3. Rear view of the HX systems (configuration with ten PCIe slots)

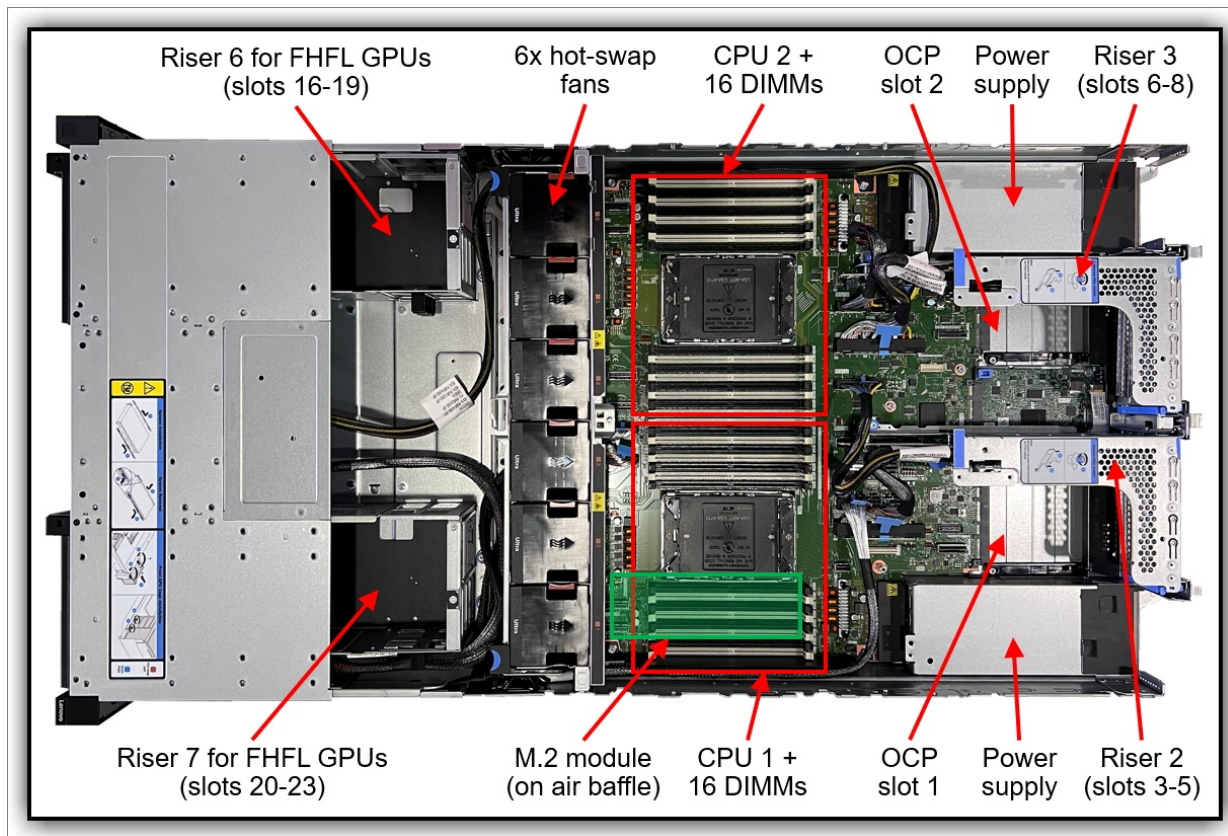The following figure shows the locations of key components inside the systems.

Figure 4. Internal view of the HX650a V4 systems

Standard specifications

The ThinkAgile HX650a V4 system are based on the ThinkSystem SR650a V4 server.

The following table provides an overview of the HX650a V4 systems.

Table 1. Overview of features

	HX650a V4
Target workloads	AI Inferencing, High performance/Mission Critical, Private Cloud, VDI
Base MTM	7DG4CTO3WW
Form Factor	2U
Base platform	SR650a V4
Supported Cluster Sizes	1 or 3+ Nodes
CPU	2x Intel Xeon SP Gen 6 (Granite Rapids)
Memory	- DDR5 memory operating up to 6400 MHz 8 channels per CPU 32 DIMMs (16 per processor), 2 DIMMs per channel - Supports RDIMMs, 3DS RDIMMs, and MRDIMMs - Up to 8TB of system memory
Drive Bays	Front: 8x 2.5" NVMe Rear: None
Drive configurations	All Flash
HBA	n/a
Boot drives	2x M.2
OCP networking	2x OCP 3.0 rear-accessible slots with PCIe Gen 5 interface - Additional PCIe adapters supported 1GbE dedicated Management port
PCIe networking	Up to 6x adapters 1Gb, 10Gb BASE-T, 10Gb, 25Gb, 100Gb
GPUs	4x Double Wide GPU 8x Single Wide GPU
Hypervisor	Nutanix AHV, VMware ESXi

The following table lists the standard specifications.

Table 2. Standard specifications

Components	Specification
Machine types	7DG4
Form factor	2U rack
Processor	Two Intel Xeon 6700P-series or 6500P-series processors (formerly codenamed "Granite Rapids"). Supports processors up to 86 cores and 172 threads, core speeds of up to 4.0 GHz, and TDP ratings of up to 350 W.
Chipset	None. Integrated into the processor

Components	Specification
Memory	32 DIMM slots with two processors (16 DIMM slots per processor). Each processor has 8 memory channels, with 2 DIMMs per channel (DPC). Lenovo TruDDR5 RDIMMs and MRDIMMs are supported. RDIMMs operate at up to 6400 MHz at 1 DPC and up to 5200 MHz at 2 DPC. MRDIMMs are supported up to 8000 MHz at 1 DPC (no support for 2 DPC).
Memory maximum	Up to 8TB by using 32x 256GB 3DS RDIMMs
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs).
Disk drive bays	- HX650a V4: - Front drive bays : 8x 2.5-inch - Rear drive bays: None 2.5-inch drives are NVMe. M.2 support, for OS boot: - Internal M.2 module supporting up to two M.2 drives
Storage controller	Up to 8x Onboard NVMe ports
Network interfaces	Two dedicated OCP 3.0 SFF slot with PCIe 5.0 x16 host interface. Supports a variety of 2-port and 4-port adapters with 1GbE, 10GbE, 25GbE and 100GbE network connectivity.
PCIe slots	Up to 8x slots at the front for GPUs, up to 6x slots at the rear, plus 2x OCP slots. All slots are PCIe 5.0. The use of Riser 3 and 6 requires 2 processors. - Riser 2 (Rear): 3x full-height slots, two x16 and one x8 (CPU 1) - Riser 3 (Rear): 3x full-height slots, two x16 and one x8 (CPU 2) - Riser 6 (Front): 4x full-height slots (CPU 2) - Riser 7 (Front): 4x full-height slots (CPU 1) All configurations include at the rear of the server: 2x OCP slots with PCIe 5.0 x16 or x8 connection Other slot configurations are available. See the I/O expansion for details.
GPU support	Support for up to 4x double-wide GPUs or 8x single-wide GPUs, installed in the front slots
Ports	Front: External diagnostics port, optional 2x USB 3 (5 Gb/s) port, one supports XCC local management, optional Mini DisplayPort (miniDP) v1.1a video port. Rear: 2x USB 3 (5 Gb/s) ports, 1x VGA video port, 1x RJ-45 1GbE systems management port for XCC remote management. Optional DB-9 COM serial port (installs in a slot). Support for an optional second RJ-45 1GbE systems management port for XCC remote management (installs in OCP adapter slot). Support for an optional adapter to share an incoming remote management network connection across 4 servers (installs in an OCP slot). Internal: Optional 1x USB 3 (5 Gb/s) connector for operating system or license key purposes
Cooling	6x (with two processors installed) or 5x (with one processor installed) single-rotor or dual-rotor hot swap 60 mm fans, configuration dependent. Fans are N+1 redundant, tolerating a single-rotor failure. One fan integrated in each power supply. For customers with water infrastructure in their data center, the server also supports open-loop water cooling for efficient heat removal.
Power supply	Up to two hot-swap redundant AC power supplies, 80 PLUS Platinum or 80 PLUS Titanium certification. 800W, 1300W, 2000W, 2700W and 3200W AC options. All AC power supplies support 230V power; some also support 115V input supply. In China only, all power supply options support 240 V DC. Support for HVDC and -48V DC power supply options.

Components	Specification
Video	Embedded graphics with 16 MB memory with 2D hardware accelerator, integrated into the XClarity Controller 3 management controller. Two video ports (rear VGA and optional front Mini DisplayPort); both can be used simultaneously if desired. Maximum resolution is 1920x1200 32bpp at 60Hz.
Hot-swap parts	Drives, power supplies, and fans.
Systems management	Operator panel with status LEDs. Optional External Diagnostics Handset with LCD display. XClarity Controller 3 (XCC3) embedded management based on the ASPEED AST2600 baseboard management controller (BMC) and OpenBMC, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. Optional XCC3 Premier to enable remote control functions and other features.
Security features	Chassis intrusion switch, Power-on password, administrator's password, Root of Trust module supporting TPM 2.0 and Platform Firmware Resiliency (PFR). Optional lockable front security bezel.
Software	Nutanix 2.0 PnP: Starter, Pro, and Ultimate editions - Nutanix Cloud Platform, Nutanix Cloud Infrastructure, Nutanix Cloud Manager, NCI-Data
Hypervisors	Nutanix AHV or VMware ESXi.
Hardware warranty	Three year customer-replaceable unit and onsite limited hardware warranty with ThinkAgile Premier Support and selectable service levels: 9x5 next business day (NBD) parts delivered, 9x5 NBD onsite response, 24x7 coverage with 2-hour or 4-hour onsite response, or 6-hour or 24-hour committed repair (select areas). Also available are YourDrive YourData, Premier Support, and Enterprise Software Support
Software maintenance	Three year software support and subscription (matches the duration of the selected warranty period).
Dimensions	Width: 445 mm (17.5 in.), height: 87 mm (3.4 in.), depth: 924 mm (36.4 in.).
Weight	Maximum weight: 38.8 kg (85.5 lb.)

Models

Factory-integrated models 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/

To ensure that the controlled GPUs and accelerators are only sold in the supported markets, the following configure-to-order base machine-type models (CTO MTMs) are selectable in DCSC:

- **Standard Open models** are available in all markets worldwide. Controlled GPUs cannot be configured using these models. These are CTO1WW models.

Note: It is highly recommended to engage a Lenovo representative in the project that includes the ThinkAgile HX Hyperconverged System.

The following table lists the base CTO models.

Table 3. CTO base models

Server model	Standard Open models
	These CTO models are available in all markets.
ThinkAgile HX650a V4	7DG4CTO3WW

Comparison with the ThinkSystem SR650a V4

The ThinkAgile HX650a V4 system are based on the ThinkSystem SR650a V4 server, however there are key differences:

- No onboard SATA controller support
- RAID adapter support for Boot only
- No VROC RAID support
- No mid-chassis drive bay support
- Encryption not supported on SED drives
- Fibre Channel support for data migration only
- No InfiniBand support

For details about the ThinkSystem SR650a V4, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server

To verify what specific hardware components are supported with the HX650a V4, see the DCSC configurator: https://dcsc.lenovo.com

Processors

The ThinkAgile HX650a V4 supports the 6th Gen Intel Xeon Scalable Processor family.

Topics in this section:

- 6th Gen Intel Xeon Scalable processors*
- Lenovo Processor Neptune Core Module - Open-loop liquid cooling

6th Gen Intel Xeon Scalable processors*

The HX650a V4 systems support the following processors. The system supports two processors installed.

For details about these options, including configuration rules, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#processors

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.

Configuration notes:

- HX650a V4 supports 2 processors

Table 4. Granite Rapids Processor choices

Part number	Feature	Description	Maximum supported HX650a V4
None	C5QQ	Intel Xeon 6505P 12C 150W 2.2GHz Processor	2
None	C5R6	Intel Xeon 6507P 8C 150W 3.5GHz Processor	2
None	C5RD	Intel Xeon 6515P 16C 150W 2.3GHz Processor	2
None	C5QV	Intel Xeon 6517P 16C 190W 3.2GHz Processor	2
None	C5QR	Intel Xeon 6520P 24C 210W 2.4GHz Processor	2
None	C5QT	Intel Xeon 6530P 32C 225W 2.3GHz Processor	2
None	C5R7	Intel Xeon 6714P 8C 165W 4.0GHz Processor	2
None	C5R5	Intel Xeon 6724P 16C 210W 3.6GHz Processor	2
None	C5R4	Intel Xeon 6730P 32C 250W 2.5GHz Processor	2
None	CARB	Intel Xeon 6732P 32C 350W 3.8GHz Processor	2
None	C5R0	Intel Xeon 6736P 36C 205W 2.0GHz Processor	2
None	C5QX	Intel Xeon 6737P 32C 270W 2.9GHz Processor	2
None	C5R3	Intel Xeon 6740P 48C 270W 2.1GHz Processor	2
None	CARA	Intel Xeon 6745P 32C 300W 3.1GHz Processor	2
None	C5R8	Intel Xeon 6747P 48C 330W 2.7GHz Processor	2
None	C5R1	Intel Xeon 6760P 64C 330W 2.2GHz Processor	2
None	C5QY	Intel Xeon 6767P 64C 350W 2.4GHz Processor	2
None	C5QM	Intel Xeon 6787P 86C 350W 2.0GHz Processor	2

Lenovo Processor Neptune Core Module - Open-loop liquid cooling

The HX650a V4 also supports advanced direct-water cooling (DWC) capability with the Lenovo Processor Neptune Core Module. This module implements a liquid cooling solution where heat from the processors is removed from the rack and the data center using an open loop and coolant distribution units.

With the Processor Neptune Core Module, all heat generated by the processors is removed from the server using water. This means that the server fans and data center air conditioning units only need to remove the heat generated by the other components. This results in lower air conditioning costs and it enables the use of slower fans which results in lower overall power consumption.

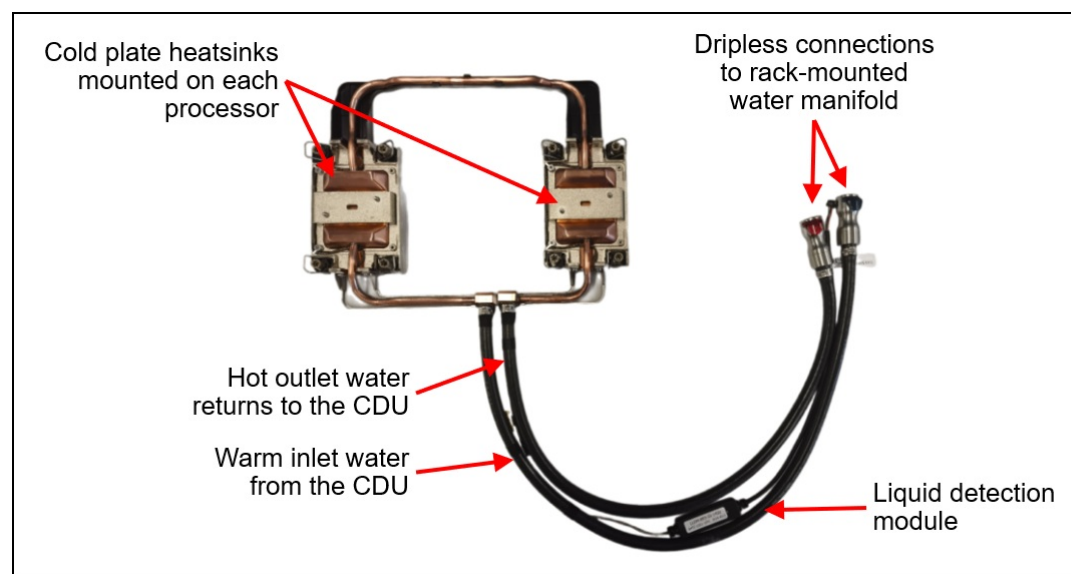The following figure shows the Lenovo Processor Neptune Core Module.

Figure 5. Lenovo Processor Neptune Core Module

The Processor Neptune Core Module also includes a leak detection module which can detect a leakage of more than 0.5ml (about 10 drops) along the length of the tube and then issue an event to the XClarity Controller. XCC will then post an error to the System Event Log and enable further actions. Once the liquid evaporates, a further event is issue to XCC.

The Processor Neptune Core Module is only available in CTO orders, not as a field upgrade. Ordering information is listed in the following table.

Table 5. Lenovo Processor Neptune Core Module

Part number	Feature code	Description
CTO only	C1XH*	ThinkSystem V4 1U/2U Processor Neptune Core Module

* In DCSC, this feature code is listed in the Processor tab

Configuration notes:

- The Processor Neptune Core Module requires water infrastructure be available in the rack cabinet and data center, as described in the Water infrastructure section.
- All processor SKUs are supported
- Either one or two CPUs are supported
- All front drive bay configurations are supported
- Slot 8 is not available for adapters - the water loop is routed through the space otherwise occupied by slot 8

- Rear drive bays are supported
- M.2 adapters are supported based on the configurations in the Storage configurations section
- Standard fans can be configured in most configurations
- The use of a cable management arm (CMA) is not supported

For more information, see the Thermal Rules page:
https://pubs.lenovo.com/sr650-v4/thermal_rules

Memory

6th Generation Memory options

The HX650a V4 systems support the following 6th generation memory options. The HX650a V4 uses Lenovo TruDDR5 memory operating at up to 6400 MHz. The server supports up to 32 DIMMs with 2 processors. The processors have 8 memory channels and support 2 DIMMs per channel (DPC). The server supports up to 8TB of memory using 32x 256GB RDIMMs and two processors.

DIMMs operate at the following speeds, up to the memory bus speed of the processor selected. See the Processor features section for specifics.

- RDIMMs and 3DS RDIMMs:
    - 1 DIMM per channel: Up to 6400 MHz
    - 2 DIMMs per channel using RDIMMs: Up to 5200 MHz
- MRDIMMs (support for MRDIMMs is processor-model dependent)
    - 1 DIMM per channel: 8000 MHz

For details about these options, including configuration rules, see the SR650a V4 product guide:
https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#memory

Table 6. Granite Rapids Memory options

Part number	Feature	Description	Maximum supported
			HX650a V4
x4 RDIMMs			
4X77A90964	C0U9	ThinkSystem 32GB TruDDR5 6400MHz (1Rx4) RDIMM	32
4X77A90966	C0TQ	ThinkSystem 64GB TruDDR5 6400MHz (2Rx4) RDIMM	32
4X77A90997	BZ7D	ThinkSystem 96GB TruDDR5 6400MHz (2Rx4) RDIMM	32
4X77A90993	C0U1	ThinkSystem 128GB TruDDR5 6400MHz (2Rx4) RDIMM	32
x8 RDIMMs			
4X77A90963	C0U2	ThinkSystem 16GB TruDDR5 6400MHz (1Rx8) RDIMM	32
4X77A90965	BYTJ	ThinkSystem 32GB TruDDR5 6400MHz (2Rx8) RDIMM	32
3DS RDIMMs			
4X77A90994	C0U0	ThinkSystem 256GB TruDDR5 6400MHz (4Rx4) 3DS RDIMM	32
MRDIMMs (operate at 8000 MHz in the HX650a V4) (Note: Not all processors support MRDIMMs - see Processor features)			
4X77A90998	C0TY	ThinkSystem 32GB TruDDR5 8800MHz (2Rx8) MRDIMM	32
4X77A90999	C0TX	ThinkSystem 64GB TruDDR5 8800MHz (2Rx4) MRDIMM	32

Internal storage

The HX650a V4 supports up to 8x 2.5-inch drive bays.

The drive bay zone is as follows:

- Front:
    - Up to 8x 2.5-inch hot-swap bays

All drives are hot-swap and are accessible from the front, from the rear.

The server also supports two M.2 drives:

- Installed in an M.2 adapter internal to the server (non-hot-swap)

For details about NVMe drives, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#nvme-drive-support

For details about these options, including configuration rules, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#internal-storage

Configuration rules

Configuration rules are as follows:

- Nutanix does not use the concept of "cache" drives but rather uses tiers. There are three tiers currently supported
    - NVMe
- HX Systems can be configured as:
    - NVMe only
- All drives in a tier must be of the same capacity.
- For All Flash configurations, the system supports from 4 to 8 NVMe drives
- All SSDs in the system must be of the same model and capacity.
- If using NVMe for boot, 2 drives are required and are used in RAID 1.
- Currently the max number of 2.5-inch drive slots is 8 when configuring a solution.

Backplanes

The choice of backplanes supported varies by system, as listed in the following table.

For details about these options, including configuration rules, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#internal-storage

Table 7. Drive backplanes

Part number	Feature	Description	Maximum supported HX650a V4
Front 2.5-inch drive backplanes			
None	C46P	ThinkSystem 2U V4 8x2.5" NVMe Backplane	1

Boot drive enablement

For OS boot functions, the system also supports two M.2 drives installed on an adapter internal to the server. The following table lists the supported controllers/enablement kits for M.2 boot drives.

For details about these options, including configuration rules, see the SR650a V4 product guide: https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#internal-storage

Table 8. Boot drive enablement

Part number	Feature	Description	Maximum supported HX650a V4
Internal M.2 (non-hot-swap)			
4Y37A93746	C26V	ThinkSystem M.2 RAID B545i-2i SATA/NVMe Adapter	1

Internal drive options

The following table lists the supported drive options for the HX650a V4.

Table 9. Internal drive options

Part number	Feature	Description	Maximum supported HX650a V4
2.5-inch hot-swap PCIe 4.0 NVMe SSDs			
4XB7B01867	C6MA	ThinkSystem 2.5" U.2 Solidigm P5520 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7B01868	C6MB	ThinkSystem 2.5" U.2 Solidigm P5520 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7B01869	C6MC	ThinkSystem 2.5" U.2 Solidigm P5520 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7B01870	C7NZ	ThinkSystem 2.5" U.2 Solidigm P5520 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8
M.2 PCIe 4.0 NVMe SSDs			
4XB7A82636	BS2P	ThinkSystem M.2 7450 PRO 480GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2
4XB7A13999	BKSR	ThinkSystem M.2 7450 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2

Network adapters

The HX650a V4 systems support the following networking options.

For details about these options, including configuration rules, see the SR650a V4 product guide:
https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#i-o-expansion
https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#network-adapters

Mixing vendors is not recommended : Failover between different vendor NICs is not supported – if you need failover between NICs, ensure they are from the same vendor.

Table 10. OCP network adapters

Part number	Feature	Description	Maximum supported HX650a V4
10 Gb Ethernet - 10GBASE-T			
4XC7A08236	B5ST	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	2
25 Gb Ethernet			
4XC7A08237	BN2T	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-Port OCP Ethernet Adapter	2
4XC7A62582	BE4T	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port OCP Ethernet Adapter	2

Table 11. PCIe network adapters

Part number	Feature	Description	Maximum supported HX650a V4
10 Gb Ethernet - 10GBASE-T			
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	5
25 Gb Ethernet			
4XC7A08238	BK1H	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-port PCIe Ethernet Adapter	5
4XC7A62580	BE4U	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port PCIe Ethernet Adapter	5
100 Gb Ethernet			
4XC7A08248	B8PP	ThinkSystem Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter	4

Note: ThinkSystem Mellanox ConnectX-6 PCIe is the only adapter enabled for RDMA, minimum required quantity is two.

GPU adapters

The HX650a V4 systems support the following GPU options.

For details about these options, including configuration rules, see the SR650a V4 product guide:
https://lenovopress.lenovo.com/lp2128-thinksystem-sr650a-v4-server#gpu-adapters

To ensure that the controlled GPUs and accelerators are only sold in the supported markets, the following configure-to-order base machine-type models (CTO MTMs) are selectable in DCSC:

- **Standard Open models** are available in all markets worldwide. Controlled GPUs cannot be configured using these models. These are CTO1WW models.

Note: It is highly recommended to engage a Lenovo representative in the project that includes the ThinkAgile HX Hyperconverged System.

Configuration Note:

- Some GPUs are only available with VMware ESXi selected as the hypervisor
- A2 support in AHV is planned for AOS 6.9
- 1 NVMe backplane is valid for use with 2 or more GPUs installed in the system

Table 12. GPU adapters

Part number	Feature	Description	Maximum supported HX650a V4
Single-wide GPUs			
4X67A84824	BS2C	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	8
Double-wide GPUs			
4X67A90669	BYFH	ThinkSystem NVIDIA L40S 48GB PCIe Gen4 Passive GPU	4
4X67A89325	BXAK	ThinkSystem NVIDIA H100 NVL 94GB PCIe Gen5 Passive GPU	4
4X67A97315	C3V3	ThinkSystem NVIDIA H200 NVL 141GB PCIe GPU Gen5 Passive GPU	2

Software

The systems support the hypervisors listed in the following table. Hypervisors are installed on the 2x M.2 SSDs configured in a RAID-1 drive group.

Table 13. Hypervisors

Feature	Description
B15S	Nutanix SW Stack on Nutanix AHV
C89R	Nutanix SW Stack on VMWare ESXi 8

Configuration notes:

- In ESXi-based environments, ThinkAgile HX Hyperconverged Solutions require VMware vCenter Server.
- The ThinkAgile HX Hyperconverged Solutions support firmware updates from Nutanix with the ThinkAgile HX Lifecycle Manager (UEFI, XCC3, drives, and network adapters)

> **Nutanix licenses**: The ThinkAgile HX650a V4 ships with the Nutanix software preloaded, however 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.

For the information on appliance firmware levels, hypervisor versions, and software versions that have been tested for interoperability, refer to the Lenovo ThinkAgile HX Series Best Recipes: http://datacentersupport.lenovo.com/us/en/solutions/ht505413

Nutanix Portfolio 2.0 (PnP) Licensing Model

Nutanix is introducing an enterprise-ready unified cloud platform with our HCI solution as the foundation. The new, simplified product portfolio includes: Nutanix Cloud Platform (NCP), Nutanix Cloud Infrastructure (NCI) and Nutanix Cloud Manager (NCM), NCI-Data with 3 license tiers for each software edition. There are additional packages, Nutanix Unified Storage, Nutanix Database Service (NDB), and Nutanix Desktop Services (NDS), Virtual Desktop Infrastructure (VDI) & Nutanix Frame that are available.

The Nutanix software is available for all base CTO models.

The editions have the following characteristics:

Table 14. Software Editions

License Tier	Nutanix Cloud Platform (NCP)	Nutanix Cloud Infrastructure (NCI)	Nutanix Cloud Manager (NCM)	NCI-Data
Ultimate	• NCI Ultimate • NCM Ultimate	• Advanced DR: Sync, Near-Sync, • Runbook Security: Micro-segmentation, Encryption • Cloud Native: Kubernetes Services	• Application Automation • Security General	• No Mseg • No Karbon
Pro	• NCI Ultimate • NCM Pro	• Multisite Async DR • Overlay Networking	• Self Service Cost Governance	• No Flow Networking
Starter	• NCI Pro • NCM Pro	• AOS Storage + Compression + Dedup	• AI Operations	• No AHV Support

Nutanix Cloud Platform (NCP)

Nutanix Cloud Platform is the complete software edition package that includes both Nutanix Cloud Infrastructure (NCI) and Nutanix Cloud Manager (NCM). It is available in several editions to meet your infrastructure needs with the right set of capabilities.

Nutanix Cloud Infrastructure (NCI)

Nutanix Cloud Infrastructure (NCI) is a complete software stack to unify your hybrid cloud infrastructure including compute, storage and network, hypervisors and containers, in public or enterprise clouds; all with built-in resilience, self-healing, disaster recovery capabilities, and security. It includes enterprise data services and consolidated storage, data protection and disaster recovery, native virtualization and container management, networking and security.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#nci

Nutanix Cloud Manager (NCM)

Nutanix Cloud Manager (NCM) offers our customers simplicity and ease of use to build and grow their cloud deployments faster and realize rapid ROI, by providing intelligent operations, self service and orchestration, visibility and governance of spend, security and teams, all through a unified Multi-cloud management solution.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#ncm

Nutanix Unified Storage

Nutanix Unified Storage provides software-defined, scale-out storage solutions for enterprise NAS and object workloads for unstructured data, block storage for structured data, and backup storage. Nutanix Unified Storage replaces traditional independent storage services and brings NAS, object, and block workloads into a consolidated unified storage platform with all its benefits, including a unified control plane.

Nutanix Data Lens delivers cloud-based data governance for unstructured data stored in the Nutanix Unified Storage platform, including data lifecycle management, data security, ransomware protection, and audit compliance.

Nutanix Unified Storage and Data Lens are purchased and licensed on a per TiB usable basis.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#nus

Nutanix Database Service

Nutanix Database Service (NDB) is a Hybrid Multicloud DBaaS that enables small, nimble teams of DBAs to easily manage large fleets of databases using a single console and API, while enabling developers to self-service their database requests. NDB is purchased and licensed on a per core basis and is available either as a standalone or as an add-on to NCI. In the standalone version, NDB includes NCI Ultimate functionality in addition to database-specific capabilities and is licensed on a per-core basis.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#database

Nutanix Virtual Desktop Infrastructure (VDI) & Nutanix Frame

The Nutanix VDI per user model offers hybrid cloud infrastructure capabilities appropriate for on-prem virtual desktop infrastructure (VDI) and Desktop as a Service (DaaS) use cases with pricing based on a Maximum Concurrent User basis (maximum number of provisioned end-user VMs). VDI per user is an alternative to the core-based NCI licensing option and is designed to provide simple, transparent licensing for all VDI users, regardless of the underlying hardware, hypervisor, or cloud.

- Agnostic: Works with any EUC management platform including Citrix Virtual Apps & Desktops and VMware Horizon
- Term license: 1-year through 5-year options
  - Term license must run on a dedicated software licensed VDI cluster with no core-based licensing. Mixing of non-VDI workloads is not supported.
- Unified Storage: Built-in and also available as a per TiB base add-on
- No additional license cost for DR site
- Portable across on-premises and public cloud, public cloud use requires Ultimate edition
- Available in Starter, Pro, and Ultimate editions
- Cloud Native and Database Service Add-ons not available with NCI VDI. Advanced Replication and Security Add-on features require NCI Ultimate edition

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#vdi

License Options

ThinkAgile HX can be configured with one of the latest Nutanix software editions that are listed in the following table.

Table 15. Nutanix license options

Feature code	Description	Quantity Required
BVKU	Nutanix Cloud Platform Starter Edition	1 per node
BVKW	Nutanix Cloud Platform Pro Edition	1 per node
BVKY	Nutanix Cloud Platform Ultimate Edition	1 per node
BSPJ	Nutanix Cloud Infrastructure Starter Edition	1 per node
BSPG	Nutanix Cloud Infrastructure Pro Edition	1 per node
BSPL	Nutanix Cloud Infrastructure Ultimate Edition	1 per node
BSQ0	Nutanix Cloud Manager Starter Edition	1 per node
BSPY	Nutanix Cloud Manager Pro Edition	1 per node
BSQ2	Nutanix Cloud Manager Ultimate Edition	1 per node
BSPQ	NCI-Data Starter Edition	1 per node
BSPN	NCI-Data Pro Edition	1 per node
BSPS	NCI-Data Ultimate Edition	1 per node
BSQH	Nutanix Database Service (NDB) Platform	1 per node
BSQ7	End User Computing (EUC) Starter	1 for every 200 concurrent users
BSQ5	End User Computing (EUC) Pro	1 for every 200 concurrent users
BSQ9	End User Computing (EUC) Ultimate	1 for every 200 concurrent users
BSQD	Nutanix Unified Storage (NUS) Starter	1 per Tib
BSQB	Nutanix Unified Storage (NUS) Pro	1 per Tib

Warranty and Support

The ThinkAgile HX650a V4 can be configured with a three-, four, or five-year hardware warranty with 24x7 ThinkAgile Premier Single Point of Support (Lenovo appliance hardware and Nutanix software) and various levels of coverage with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.

The Lenovo local support centers perform problem determination and resolution for hardware-related issues and escalate to Nutanix, on behalf of the customer, for software-related problem determination. Nutanix will contact the customer and will own the software-related problem resolution until closure.

For more information refer to the Lenovo Support Plan - ThinkAgile HX Series
https://datacentersupport.lenovo.com/us/en/solutions/ht505404

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.

Hardware warranty

The ThinkAgile HX650a V4 system have a 3-year warranty:

- 7DG4 - 2U System - 3 year warranty

Our global network of regional support centers offers consistent, local-language support enabling you to vary response times and level of service to match the criticality of your support needs:

- **Standard Next Business Day** – Best choice for non-essential systems requiring simple maintenance.
- **Premier Next Business Day** – Best choice for essential systems requiring technical expertise from senior-level Lenovo engineers.
- **Premier 24x7 4-Hour Response** – Best choice for systems where maximum uptime is critical.
- **Premier Enhanced Storage Support 24x7 4-Hour Response** – Best choice for storage systems where maximum uptime is critical.

For more information, consult the brochure Lenovo Operational Support Services for Data Centers Services .

Deployment services

The following optional Lenovo Professional Services are available 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
    - VMware vCenter Server and vSphere cluster (for VMware installations)
  - 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

The following table lists ThinkAgile Health Check & Deployment offerings are available for ThinkAgile HX customers. These offerings are performed by Lenovo Professional Services.

- **Onsite Deployment**: Install, configure, and validate solution on-site, and conduct knowledge transfer.

- **Remote Deployment**: Install, configure, and validate solution remotely, and conduct knowledge transfer.

- **Remote Health Check**: Report & remediation of hardware and cluster health issues, including firmware and software updates.

Note: For custom Hardware Installation and Deployment Services, please contact the Lenovo Professional Services team for sizing and pricing.

Table 16. Deployment offerings

Part number	Description
Onsite deployment services	
5MS7B00043	ThinkAgile HX Onsite Deployment (up to 3 nodes)
5MS7B00044	ThinkAgile HX Onsite Deployment (additional node)
Remote deployment services	
5MS7B00045	ThinkAgile HX Remote Deployment (up to 3 nodes)
5MS7B00046	ThinkAgile HX Remote Deployment (additional node)
5MS7A27430	ThinkAgile HX SAP HANA Deployment - Custom
Remote Health Check	
5MS7B00065	ThinkAgile HX 1X Remote Health Check (up to 3 node cluster)
5MS7B00066	ThinkAgile HX 1X Remote Health Check (additional node)
5MS7B00067	ThinkAgile HX 1X Remote Health Check & Update (up to 3 node cluster)
5MS7B00068	ThinkAgile HX 1X Remote Health Check & Update (additional node)

For more information, refer to the Data Center Implementation Services web page:
https://www.lenovo.com/us/en/data-center/services/implementation-services/

Lenovo TruScale

Lenovo TruScale XaaS is your set of flexible IT services that makes everything easier. Streamline IT procurement, simplify infrastructure and device management, and pay only for what you use – so your business is free to grow and go anywhere.

Lenovo TruScale is the unified solution that gives you simplified access to:

- The industry's broadest portfolio – from pocket to cloud – all delivered as a service
- A single-contract framework for full visibility and accountability
- The global scale to rapidly and securely build teams from anywhere
- Flexible fixed and metered pay-as-you-go models with minimal upfront cost
- The growth-driving combination of hardware, software, infrastructure, and solutions – all from one single provider with one point of accountability.

For information about Lenovo TruScale offerings that are available in your region, contact your local Lenovo sales representative or business partner.

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.

Seller training courses

The following sales training courses are offered for employees and partners (login required). Courses are listed in date order.

1. **Guide d'étude pour l'examen de certification des ventes de Lenovo Data Center**
   2025-07-30 | 10 minutes | Employees and Partners

   French translated study guide for LENU-122C
   Ce guide contient des informations pour aider les candidats à se préparer et à s'inscrire aux examens pratiques et de certification de vente en centres de données.

   Tags: DataCenter Products, Server, ThinkEdge

   Published: 2025-07-30
   Length: 10 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo
   > Partner link: Lenovo 360 Learning Center

   Course code: LENU-122C-SG-FR

2. **VTT Cloud Architecture - Engineering Modern IT - ThinkAgile HX V4, HYCU Agentless Backup, NKP and AI-Ready Infrastructure**
   2025-07-25 | 80 minutes | Employees and Partners

   Join Adam Mandelbloom, Lenovo Technical Marketing Manager, Dan Ciruli, Nutanix, Senior Director of Product Management and Michael Taylor, HYCU for an exclusive technical sales discussion to help your customers who are looking to stay ahead in the evolving world of hybrid cloud, AI, and containerized workloads. This session will explore how ThinkAgile HX V4 and Lenovo's ecosystem of partners featuring Nutanix and HYCU is transforming enterprise IT with cutting-edge solutions. Topics we will be covering are:

   • Intro to ThinkAgile HX650 V4, ThinkAgile HX630 V4 and soon to be released ThinkAgile HX650a V4.
   • HYCU Introduction - Discover how HYCU delivers agentless, application-aware backup and recovery tailored for ThinkAgile HX environments. Learn how to position HYCU as a seamless, cost-effective solution for data protection across hybrid and multi-cloud deployments.
   • Understand how HYCU's native integration with Nutanix simplifies data protection
   • Learn how to position agentless, application-aware backup as a differentiator
   • Explore key talking points for hybrid and multi-cloud backup scenarios
   • Nutanix AI - Explore the latest innovations in ThinkAgile HX Nutanix GPT-in-a-Box and AI-ready infrastructure. Understand how to help customers deploy AI workloads with confidence, leveraging Nutanix's secure, scalable, and simplified platform.
   • Discover how ThinkAgile HX enables secure, scalable AI deployments with GPT-in-a-Box
   • Learn to identify AI-ready customers and align infrastructure to AI/ML use cases
   • Get tips on highlighting ROI
   • Nutanix Kubernetes Platform (NKP) -Get insights into NKP, Nutanix's enterprise-grade Kubernetes management solution. Learn how to guide customers through their cloud-native journey, from container orchestration to DevOps integration.
   • Understand how NKP supports enterprise-grade Kubernetes at scale
   • Learn how to align NKP with DevOps, modernization, and cloud-native initiatives
   • Explore competitive positioning and integration opportunities

   Tags: Cloud, Artificial Intelligence, Nutanix, Backup and Recovery, Technical Sales

   Published: 2025-07-25
   Length: 80 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo
   > Partner link: Lenovo 360 Learning Center

   Course code: DVCLD225

3. **Lenovo Data Center Product Portfolio**
   2025-06-11 | 20 minutes | Employees and Partners

   This course introduces the Lenovo data center portfolio, and covers servers, storage, storage networking, and software-defined infrastructure products. After completing this course about Lenovo data center products, you will be able to identify product types within each data center family, describe Lenovo innovations that this product family or category uses, and recognize when a specific product should be selected.

   Course objectives:
   1.Identify product types within each data center family
   2.Describe the features of the product family or category
   3.Recognize when a specific product should be selected

   Tags: Advanced DataCenter, DataCenter Products, Server, ThinkAgile, ThinkEdge, ThinkSystem

   Published: 2025-06-11
   Length: 20 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo
   > Partner link: Lenovo 360 Learning Center

   Course code: SXXW1110r8

4. **VTT: Nutanix Integration in XClarity One - SAM - May 2025**
   2025-06-10 | 56 minutes | Employees Only

   Please join this session as our speaker Sorin Tacu, will be sharing us a preview of SAM (Solutions Advanced Manager) - a powerful new tool developed by the ThinkAgile HX team in collaboration with XClarity One. Designed to seamlessly integrate the Nutanix Solution into XClarity One, SAM is set to streamline solution management and drive greater value for our customers. Get a first look at its future capabilities and learn more about it.

   Tags: Nutanix, XClarity

   Published: 2025-06-10
   Length: 56 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo

   Course code: DVSYS217

5. **Partner Technical Webinar - ThinkAgile V4**
2025-06-09 | 60 minutes | Employees and Partners

In this 60-minute replay, Pawan Misra, Lenovo SDI Product Manager and Adam Mandelbloom, Lenovo SDI Technical Marketing Manager, reviewed the newly announced ThinkAgile V4 systems for HX, VX and MX.

Tags: Microsoft, Nutanix, VMware

Published: 2025-06-09
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: JUN0625

6. **Family Portfolio: ThinkAgile Systems**
2025-04-30 | 45 minutes | Employees and Partners

This course covers the foundational components of the ThinkAgile family, including server configurations, key system differences, and the unique features of the HX, MX, and VX product families.
By the end of this course, you should be able to:
•List the ThinkSystem and ThinkEdge servers that the ThinkAgile family is based on
•Explain the difference between Certified Nodes and Integrated Systems
•List two features each of the HX, MX, and VX families

Tags: ThinkAgile, ThinkSystem

Published: 2025-04-30
Length: 45 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: SXSW2150r2

7. **Partner Technical Webinar - Storage Announcements**
2025-04-29 | 60 minutes | Employees and Partners

In this 60-minute replay, the April 23 Storage Announcement was presented. Adam Mandelbloom, Lenovo Technical Marketing Manager, presented the ThinkAgile announcements. Next, Roger Yarosh, Senior Storage Product Manager, presented the DG and DM announcements.

Tags: Data Management, ThinkAgile

Published: 2025-04-29
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: 042525

8. **Think AI Weekly: Simplifying AI Deployments with ThinkAgile**
   2025-04-11 | 54 minutes | Employees Only

   Please view this session to hear Adam Mandelbloom, Technical Marketing Manager for ISG explain these topics:

   -Overall value proposition of ThinkAgile in AI solutions
   -Use cases for ThinkAgile HX
   -Use cases for ThinkAgile VX and MX

   Tags: Artificial Intelligence (AI), ThinkAgile

   Published: 2025-04-11
   Length: 54 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo

   Course code: DTAIW137

9. **Lenovo TruScale for Hosted Desktops with Nutanix**
   2025-02-04 | 15 minutes | Employees and Partners

   By exemplifying the case of a customer who wants to move to a remote desktop public cloud solution, this 15-minute course offers an overview of the Lenovo TruScale for Hosted Desktops with Nutanix solution, including benefits, architecture, and value proposition.

   After completing this course, you will be able to describe the Lenovo TruScale for Hosted Desktops with Nutanix solution, articulate the value proposition of this Hosted Desktops solution, and identify opportunities for this Lenovo-Nutanix solution.

   Tags: ThinkAgile, TruScale

   Published: 2025-02-04
   Length: 15 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo
   > Partner link: Lenovo 360 Learning Center

   Course code: DSOLO109

10. **Selling On Prem Value - Private Cloud and Private AI**
    2024-12-13 | 40 minutes | Employees Only

    This course provides Lenovo Sellers with a series of five videos that are designed to help you better articulate our joint value in the Private Cloud and Private AI solution opportunity. After completing this course, Lenovo Sellers should be prepared to elevate customer discussions by transitioning from product features to explaining value-driven benefits, enabling a deeper understanding of the strategic impact for their business.

    Tags: Artificial Intelligence (AI), Industry solutions, Technology solutions, ThinkAgile, VMware

    Published: 2024-12-13
    Length: 40 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo

    Course code: DVMB101

11. **Partner Technical Webinar - Data Center 101 - Why HCI? Why 3-tier?**
2024-11-14 | 60 minutes | Employees and Partners

October 11, 2024 – In this 60-minute webinar Alex Docherty, Channel Technical Strategist, discussed When to HCI vs 3 Tier.

Tags: ThinkAgile, ThinkSystem

Published: 2024-11-14
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: 101124

12. **ThinkAgile Solutions for AI - Security and Compliance Considerations**
2024-10-01 | 15 minutes | Employees and Partners

This course, tailored specifically for Lenovo and its partner technical sellers, is designed to equip participants with essential knowledge and skills to effectively assess security measures and address compliance considerations for ThinkAgile Solutions for AI.

Upon completion of this training, you will be able to:
• Describee security features of ThinkAgile for AI data protection.
• Explain how to mitigate risk and address compliance considerations in AI deployments.

Last Updated: September 2024

Tags: Artificial Intelligence (AI), High-Performance Computing (HPC), ThinkAgile

Published: 2024-10-01
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI203

13. **Integration of ThinkAgile and AI**
    2024-09-11 | 25 minutes | Employees and Partners

    Designed specifically for Lenovo and its partner technical sellers, this course aims to equip you with the knowledge and skills to effectively communicate the integration of ThinkAgile Solutions and AI.

    Upon completion of this training, you will be able to:
    •Highlight the advantages of using ThinkAgile for AI workloads
    •Explore how ThinkAgile platforms are specifically optimized for AI

    Last Updated: September 2024

    Tags: Artificial Intelligence (AI), ThinkAgile

    Published: 2024-09-11
    Length: 25 minutes

    Start the training:
    Employee link: Grow@Lenovo
    Partner link: Lenovo 360 Learning Center

    Course code: DCLDAI204

14. **Key Features of Lenovo ThinkAgile Solutions for AI**
    2024-09-10 | 15 minutes | Employees and Partners

    Designed specifically for Lenovo and its partner technical sellers, this course aims to equip you with the knowledge and skills to effectively communicate the key features of ThinkAgile Solutions for AI. By completing this course, you'll be better prepared to understand customer needs and present the most suitable AI solutions, ensuring successful engagements and driving value for your clients.

    In this course, you will learn how to:
    • Present compute capabilities for AI processing
    • Articulate optimized storage solutions with ThinkAgile for high-speed AI performance
    • Identify essential networking considerations for ThinkAgile AI workloads
    • Present ThinkAgile AI Ready solutions

    Last Updated: September 2024

    Tags: Artificial Intelligence (AI), ThinkAgile

    Published: 2024-09-10
    Length: 15 minutes

    Start the training:
    Employee link: Grow@Lenovo
    Partner link: Lenovo 360 Learning Center

    Course code: DCLDAI201

15. **ThinkAgile Solutions for AI - Sales Strategies and Messaging**
2024-09-06 | 15 minutes | Employees and Partners

This course is designed exclusively for Lenovo and its partner technical sales teams, with the goal of empowering you with the knowledge and strategies necessary to effectively engage customers in conversations about ThinkAgile Solutions for AI.

In this course, you'll learn how to:
• Identify customer pain points.
• Recommend ThinkAgile Solutions for AI tailored to those needs. And lastly,
• Communicate the benefits of ThinkAgile for AI to key stakeholders.

Last Updated: September 2024

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-09-06
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI202

16. **Position Lenovo ThinkAgile Solutions for AI**
2024-08-19 | 10 minutes | Employees and Partners

Designed specifically for Lenovo and partner technical sellers, this course aims to equip you with the knowledge and skills necessary to effectively evaluate and position ThinkAgile Solutions for AI to your customers. By completing this course, you will be better prepared to understand customer needs and present the most suitable AI solutions, ensuring successful engagements and driving value for your clients.

In this course, you will learn how to position ThinkAgile Solutions for AI to your customers by:
•Evaluating the key challenges in the enterprise landscape
•Advocating the value proposition of ThinkAgile Hyper-Converged Infrastructure
•Exploring use cases of ThinkAgile in AI environments
•Implementing ThinkAgile-based AI deployments

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-08-19
Length: 10 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI200

17. **SAP Webinar for Lenovo Sellers: Lenovo Portfolio Update for SAP Landscapes**
2024-06-04 | 60 minutes | Employees Only

Join Mark Kelly, Advisory IT Architect with the Lenovo Global SAP Center of Competence as he discusses:
•Challenges in the SAP environment
•Lenovo On-premise Solutions for SAP
•Lenovo support resources for SAP solutions

Tags: SAP, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2024-06-04
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo

Course code: DSAPF101

18. **Start the Conversation - Lenovo Cloud Strategy**
2024-05-20 | 25 minutes | Employees and Partners

The purpose of this course is to help sellers use the Lenovo cloud strategy as a foundation to start the customer cloud conversation.

Course Objectives:
•Understand why customers choose the cloud
•Describe the Lenovo Cloud Strategy
•Be able to start the customer cloud conversation

Tags: Cloud, Technology solutions

Published: 2024-05-20
Length: 25 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDS103r3

19. **VTT Data Management How to sell storage - April 2024**
    2024-04-10 | 60 minutes | Employees and Partners

    In this course, you will know:

    - Why do we sell storage?
    - What are the basics you need to get an opportunity rolling?
    - Why Lenovo for Storage?
    - What is happening in the market today?
    - How to determine traction?

    Tags: Data Management, Storage

    Published: 2024-04-10
    Length: 60 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo
    > Partner link: Lenovo 360 Learning Center

    Course code: DVDAT209

20. **Technical Overview: ThinkAgile HCI and Cloud Platforms**
    2024-03-07 | 35 minutes | Employees and Partners

    This course is designed to give Lenovo sales and partner representatives a technical overview of Lenovo's ThinkAgile hyperconverged infrastructure and cloud platforms. Turnkey cloud platforms along with their architectural makeup, and container and data protection solutions are also covered.

    Learning Objectives:

    •Describe Lenovo's ThinkAgile hyperconverged infrastructure and cloud platforms
    •Explain do-it-yourself and turnkey cloud platforms along with their architectural makeup
    •Describe container and data protection solutions

    Tags: Architecture, Engineering & Construction, Cloud, Technical Sales, ThinkAgile

    Published: 2024-03-07
    Length: 35 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo
    > Partner link: Lenovo 360 Learning Center

    Course code: DCLDT2001r3

21. **Lenovo HX Business Conversations**
    2024-03-06 | 20 minutes | Employees and Partners

    This course covers business conversations for Lenovo HX Hyperconverged solutions.
    Course objectives:
    •Identify a potential Lenovo HX opportunity
    •Conduct effective discovery to reveal the customer's data center needs
    •Probe the customer
    •Ensure the customer knows you understand their issue(s)

    Tags: DataCenter Products, Nutanix, Storage

    Published: 2024-03-06
    Length: 20 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo
    > Partner link: Lenovo 360 Learning Center

    Course code: DCGHXB001

22. **The 10-minute Edge conversation for Lenovo Sellers**
    2023-12-14 | 20 minutes | Employees and Partners

    The purpose of this course is to enable sellers to have a 10 to 15-minute customer conversation addressing the relevancy of Edge solutions to the customer business.

    Learning Objectives:

    •Prepare for the initial customer conversation
    •Hold a 10-minute Edge Operational Technology (OT) conversation
    •Take the appropriate steps to progress the sale

    Tags: ThinkEdge

    Published: 2023-12-14
    Length: 20 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo
    > Partner link: Lenovo 360 Learning Center

    Course code: DTEF103

23. **VEEAM Solutions Sales Training**
2023-09-27 | 20 minutes | Employees and Partners

In this course you will learn about Hyper-availability for the Always-On Enterprise.

By the end of this training, you should be able to:

Identify and explain the core products and solutions offered by Veeam.
Explain the key benefits and value propositions of integrating Veeam solutions with Lenovo products.

Tags: Sales

Published: 2023-09-27
Length: 20 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DSTOO100

24. **A Seller's Guide to Nutanix OEM 2.0**
2023-08-24 | 90 minutes | Employees Only

In this Sales Team webinar, Mike Tilt, Ritu Jain and Brandon Saxton will cover the new Nutanix 2.0 pricing and packaging options to guide sellers on what the different types of offers, sales process and how to sell Nutanix 2.0. You will get an overview of OEM 2.0, Sales Process, PNP Pricing and Zone Information, and additional resources on Upgrade & Renewal SKUs and process.

Course Objectives
•Defining Nutanix 2.0 Pricing and Packaging
•Describing OEM 2.0 Sales Process
•Identifying resources and support

Tags: Nutanix, OEM, Sales

Published: 2023-08-24
Length: 90 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DSXNS101

25. **Empowering Technical Sellers: Excelling In Transactional Workloads**
2023-08-18 | 60 minutes | Employees and Partners

This training abstract outlines a comprehensive program designed to equip technical sellers with the knowledge and expertise required to effectively promote and sell Lenovo and Nutanix solutions for transactional workloads. By focusing on the unique capabilities and advantages of Lenovo and Nutanix infrastructure in handling high-performance transactional applications, this training program empowers technical sellers to engage with customers, understand their specific workload requirements, and articulate the value proposition of Lenovo and Nutanix offerings in this domain.
The training program encompasses the following key areas:
1. Transactional Workloads Overview:
2. Lenovo and Nutanix Solutions for Transactional Workloads:
3. Product Portfolio Deep Dive:
4. Addressing Customer Requirements:
5. Solution Positioning and Sales Techniques:
6. Competitor Analysis:
Through this training, technical sellers will acquire the expertise necessary to engage with customers, understand their transactional workload requirements, and effectively position Lenovo and Nutanix solutions as the ideal choice for high-performance, mission-critical applications. By understanding the intricacies of Lenovo and Nutanix offerings in the transactional workload space, technical sellers will be empowered to drive successful sales engagements, build strong customer relationships, and contribute to the growth and success of their organization.

Tags: Cloud, Nutanix, ThinkAgile

Published: 2023-08-18
Length: 60 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DHXD201

26. **Empowering Technical Sellers: Accelerating Lenovo and Nutanix Cloud Native-Container Application Solutions**
2023-08-18 | 60 minutes | Employees and Partners

This training abstract outlines a comprehensive program specifically designed to equip technical sellers with the knowledge and expertise needed to effectively promote and sell Lenovo and Nutanix cloud native/container application solutions. By focusing on the integration of Lenovo and Nutanix technologies with modern application development practices, this training enables tech sellers to engage with customers, understand their requirements, and articulate the unique value proposition of Lenovo and Nutanix offerings in the cloud native and containerization landscape.
The training encompasses the following key areas:
1. Cloud Native and Containerization Fundamentals:
2. Lenovo and Nutanix Solutions Overview:
3. Product Portfolio Deep Dive:
4. Addressing Customer Needs:
5. Solution Positioning and Sales Techniques:
6. Competitor Analysis:
7. Technical Demonstration and Proof-of-Concept:
Throughout the training, tech sellers will gain the expertise necessary to engage with customers, understand their unique requirements, and effectively position Lenovo and Nutanix solutions as the go-to choice for cloud native and containerized application needs. By learning the intricacies of Lenovo and Nutanix offerings, technical sellers will be equipped to drive successful sales engagements, strengthen customer relationships, and contribute to the overall growth and success of the organization.

Tags: Business solutions, Cloud, Nutanix, ThinkAgile

Published: 2023-08-18
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXC201

27. **ThinkAgile Accelerating Cloud Agility: HX Series Technical Presentation**
2023-07-28 | 40 minutes | Employees and Partners

Amalu Santhosh, Lenovo Technical Product Manager, reviews the ThinkAgile HX product portfolio. She will walk you through a technical deep dive into HX workloads and discuss technical details and performance of the latest ThinkAgile HX solutions.

Tags: ThinkAgile

Published: 2023-07-28
Length: 40 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXT201

28. **Cloud and HCI or Somewhere in Between**
2023-07-11 | 40 minutes | Employees and Partners

Provides a brief overview of Lenovo Portfolio for HCI and Cloud including ThinkAgile HX, VX, MX Certified Nodes and Appliances, Azure, and Engineered Cloud Solutions. Review Scenarios and complete questions "choose your own adventure" to identify and qualify an opportunity as HCI or Cloud and which portfolio solution would be the best option.

Course objectives:
•Where in the Sales Cycle we are
•What is Cloud
•What is Hyperconverged Infrastructure (HCI)
•Review Lenovo Offerings in Cloud and HCI
•Scenarios

Tags: Cloud

Published: 2023-07-11
Length: 40 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDS104r2

29. **What's New with Nutanix 2.0? Portfolio and Licensing**
2023-06-08 | 15 minutes | Employees and Partners

Nutanix has updated and simplified their licensing for our joint customers. This course is created to give sales and partners representatives an overview for the recent Nutanix licensing changes and their current options.

Course Objectives:

After completing this course, you should be able to:

• Describe the new Nutanix licensing rollout
• List the new pricing and packaging options

Tags: Cloud, Nutanix, Software Defined Infrastruture (SDI), ThinkAgile

Published: 2023-06-08
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXL001

30. **Data Infrastructure Management - DM Series Storage**
    2022-10-28 | 25 minutes | Employees Only

    This course provides a technical overview of the ThinkSystem DM series products. Course DDMO101 – Lenovo ThinkSystem DM & DE Series Overview is recommended prior to this course.

    By the end of this course, you should be able to:
    •Recognize the components of the Lenovo Data Management portfolio
    •Discuss the features of the Lenovo Data Management components
    •Describe the features of the SnapCenter software components

    Tags: Sales, Storage, Technical Sales, ThinkSystem

    Published: 2022-10-28
    Length: 25 minutes

    > **Start the training:**
    > Employee link: Grow@Lenovo

    Course code: DDM200

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
- 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://pubs.lenovo.com/thinkagile-hx/
- Nutanix documentation
  https://my.nutanix.com/
- Lenovo ThinkAgile HX Series Best Recipes
  https://support.lenovo.com/us/en/solutions/HT515725
- Lenovo Data Center Support
  http://datacentersupport.lenovo.com

Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- Hyperconverged Infrastructure
- ThinkAgile HX Series for Nutanix

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This document, LP2229, was created or updated on August 12, 2025.

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