Lenovo ThinkAgile MX650a V4 Hyperconverged System
Product Guide

The Lenovo ThinkAgile MX650a V4 are 2-socket 2U systems that are designed for deploying highly available, highly scalable hyper-converged infrastructure (HCI) and software-defined storage (SDS) from Microsoft on Lenovo enterprise platforms that feature Intel® Xeon® 6 scalable processors (formerly code named "Granite Rapids-SP"). The latest Lenovo ThinkAgile MX650a V4 system is backed by the power of Intel® Xeon® 6 processors to deliver more cores, higher memory bandwidth, and enhanced AI acceleration in every core. This GPU-Dense systems is designed to make AI accessible with new servers that are purpose-built and optimized to maximize performance and efficiency for wide range of targeted workloads, from compute-intensive AI to general-purpose data services while flexibly matching the specific workloads needs of any business. The MX650a V4 delivers fully validated and integrated Lenovo hardware and firmware that is certified for Microsoft Azure Local solutions.

The 2U systems are available as a flexible model. The ThinkAgile MX650a V4 includes the Azure Local version 23H2 operating system and Lenovo ThinkAgile support with single point of contact support for hardware and L1, L2 support for software from Lenovo. Customers can deploy and update features via Azure Arc and Windows Admin Center. The tight integration with Lenovo XClarity makes cluster management, hardware and software update management, and enforcement of site-wide policies easy for IT administrators. Using SBE (Solution Builder Extension), the best recipes can be acquired via a one-click update. Native integration with Azure services makes it easy for customers to adopt a hybrid cloud strategy for their workloads.

The 2U system is available as:

- MX650a V4 system for high performance GPU intensive workloads, AI Inferencing, Private\Hybrid Clouds.

ThinkAgile MX650a V4 delivers fully validated and integrated Lenovo hardware and firmware, certified and can be pre-loaded with the latest Microsoft Azure Local software. The customers receive a perpetual Azure Stack Local OEM license bundle for as long as they own the server. In supported countries, they can also include ThinkAgile Premier support with one single point of contact for support of the hardware and software.
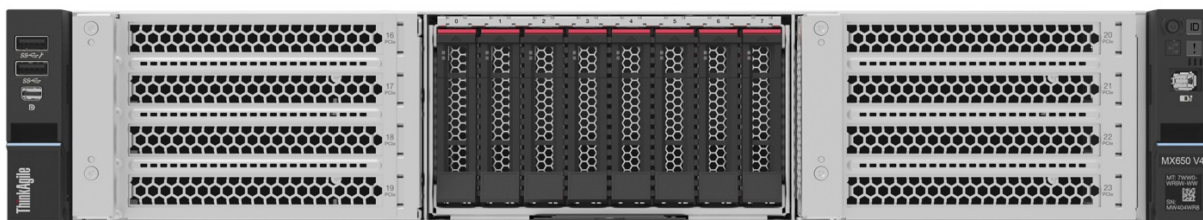

Figure 1. Lenovo ThinkAgile MX650a V4 with 2.5-inch drive bays

Did you know?

The ThinkAgile MX650a V4 are built on industry-leading Lenovo ThinkSystem servers that feature enterprise-class reliability, management, and security. They deliver fully validated and integrated hardware and firmware that is certified for Microsoft Azure Local solutions.

The ThinkAgile MX650a V4 server supports four double-wide GPUs at the front of the server. This is ideal for demanding workloads such as AI training and inference.

The ThinkAgile MX650a V4 offers in supported countries, ThinkAgile Premier Single Point of Support for quick 24/7 problem reporting and resolution.

Key features

Combining performance and flexibility, the ThinkAgile MX650a V4 is a great choice for enterprises of all sizes. The systems offer a broad selection of processors, memory and drives, on a GPU-Dense platform and 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 MX Series platform offers a flexible model with Azure Local solution. These validated platforms help modernize on-premises infrastructure with pre-tested, pre-validated, and easy-to-order configurations, with seamless Azure integration. As a direct and indirect Microsoft Cloud Solution Provider, Lenovo offers cloud services and subscriptions through the Lenovo Cloud Marketplace, which enable HCI use cases with the ThinkAgile MX platforms.

- The ThinkAgile MX650a V4 is continuously tested and validated by Lenovo and Microsoft with single point of support for HW and L1, L2 SW support from Lenovo to ensure higher reliability and less downtime. It can also includes Lenovo white glove deployment services to get customers up and running quickly.

- The ThinkAgile MX650a V4 includes the Azure Local operating system, which is delivered as a perpetual license. It can also include in supported countries, ThinkAgile Premier support with one single point of contact for support of the hardware and warm-case transfer for software. Deployment and Update features in Windows Admin Center and tight integration with Lenovo XClarity make cluster management, hardware and software update management & enforcing site-wide policies easy for administrators. Azure hybrid by design, native integration with Azure services makes it easy for customers to adopt a hybrid cloud strategy for their workloads and use cases.

- The ThinkAgile MX650a V4 has the option of Windows Server 2025 Datacenter Edition for HCI functionality, and guest licenses are included.

Model features

The ThinkAgile MX650a V4 offers the following key features:

- Continuously tested and validated by Lenovo and Microsoft with single point of support for HW and L1, L2 SW support from Lenovo to ensure higher reliability and less downtime.

- Quick and convenient path to implement a hyperconverged solution powered by the Azure Local OS with Hyper-V virtualization, Microsoft Storage Spaces Direct (S2D) Software Defined Storage (SDS), and Software Defined Networking (SDN) network virtualization.

- Streamlined management of Azure Arc enabled servers with unified single-pane-of-glass for creating and managing VMs, S2D volumes, and virtual networks with Azure Portal or Windows Admin Center with Lenovo xClarity Integrator.

- Solution Builder Extension (SBE) integration with Azure Arc.

- Consistent, low latency performance with hypervisor-embedded architecture, built-in read and write cache, and support for NVMe PCIe drives.

- GPU support to enable AI training, inferencing and data visualization scenarios, HPC workloads, virtual desktops and graphics intensive applications.

- Built on proven and reliable Lenovo ThinkSystem servers that provide compute power and space efficiency for a variety of workloads and applications.

- Can sustain drive, server, or component failures with built-in resiliency for continuous availability.

- GPU support to enable AI training, inferencing and data visualization scenarios, HPC workloads, virtual desktops and graphics intensive applications.

- Provides comprehensive hardware management with advanced systems management capabilities with XClarity

- Availability of full stack cluster aware update in a single step with rigorous health pre-check.

- Ready for out-of-box deployment with the mandatory Azure Local OS pre-loaded, with the option to

purchase a Windows Server 2025 Datacenter license if unlimited guest OS VMs are desired.

- Azure Kubernetes Service (AKS) is included to manage your containers.
- Premier Support provides a Single Point of Support for quick 24/7 problem reporting and resolution.
    - In Premier countries, Premier Support is mandatory
    - In non-premier countries, Premier Support is optional
- Optional Lenovo white glove deployment services to get customers up and running quickly.

Hardware features

The ThinkAgile MX650a V4 are based on the SR650a V4 and have the following hardware features:

Scalability and performance

The ThinkAgile MX650a V4 offer numerous features to boost performance, improve scalability and reduce costs:

- Supports one or two Intel® Xeon® 6 Scalable processors with Performance cores (P-cores)
    - Up to 86 P-cores and 172 threads
    - Core speeds of up to 3.9 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 5600 MHz
    - Supports 1 MRDIMM per channel operating at 8000 MHz
    - Using 256GB 3DS 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. MRDIMMs require Intel Xeon 6700P-series processors.
- Supports up to 8x single-width GPUs or t4x double-wide GPUs, for substantial processing power in a 2U system.
- Supports up to 8x 2.5-inch 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.
- Supports M.2 drives for convenient operating system boot functions or data storage. M.2 RAID Boot Adapters configured in RAID-1, which enables two SATA or 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 side band 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.
- The server offers up to eight PCIe 5.0 slots, with either front or rear access.

Availability and serviceability

The ThinkAgile MX650a V4 provide many features to simplify serviceability and increase system uptime:

- The server offers Single Device Data Correction (SDDC, also known as Chipkill), Adaptive Double-Device Data Correction (ADDDC, also known as Redundant Bit Steering or RBS), and memory mirroring for redundancy in the event of a non-correctable memory failure. Note: ADDDC in not supported with 9x4 RDIMMs.
- The server offers hot-swap drives, providing greater system uptime.
- Available internal M.2 RAID Boot Adapters support RAID-1 which can enable two SATA or two NVMe 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.
- 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 (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, server ambient and subcomponent temperatures. Alerts can be surfaced through the XClarity Controller 2 to managers such as Lenovo XClarity Administrator 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 3 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 ThinkAgile MX650a V4:

- The server includes XClarity Controller 3 (XCC3) to monitor server availability. Optional 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). Optional support for a second dedicated BMC management port, installed in the OCP adapter bay.
- 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 HDDs and SSDs, as well as 7mm and 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 ThinkAgile MX650a 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
    - Compute Complex Neptune Core Module uses liquid cooling to remove heat from the processors, memory and voltage regulators

- 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.

- 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.

- 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.

Components and connectors

The ThinkAgile MX650a V4 is based on the ThinkSystem SR650a V4 server.

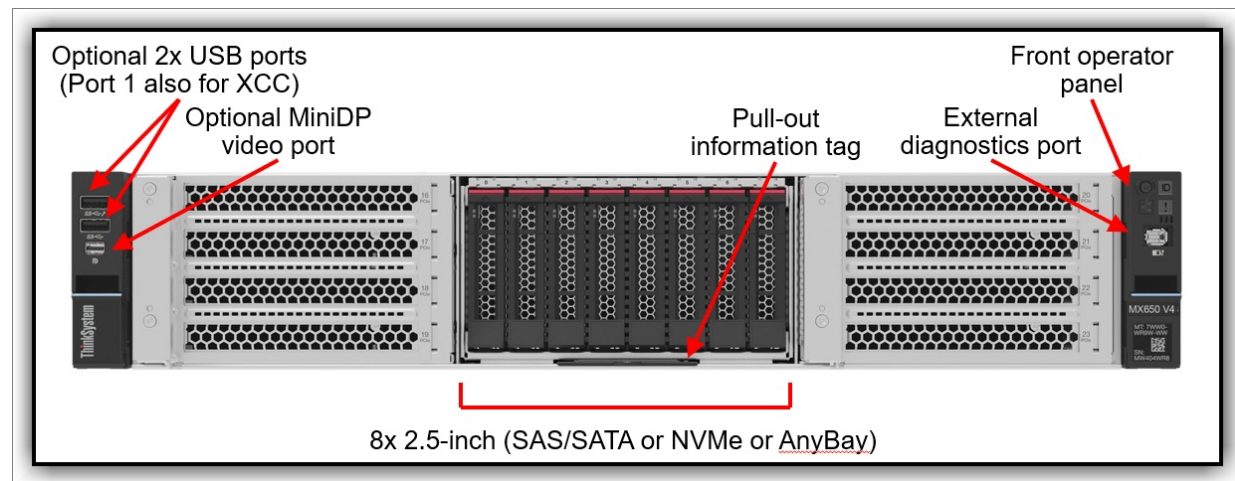The following figure shows the front of the ThinkAgile MX650a V4 with 2.5-inch drives.

Figure 2. Front view of the ThinkAgile MX650a V4 with 2.5-inch drives.

The following figure shows the components visible from the rear of the system. The figure shows one configuration, with ten PCIe slots, however there are additional rear configurations which includes, 2.5-inch drive bays.
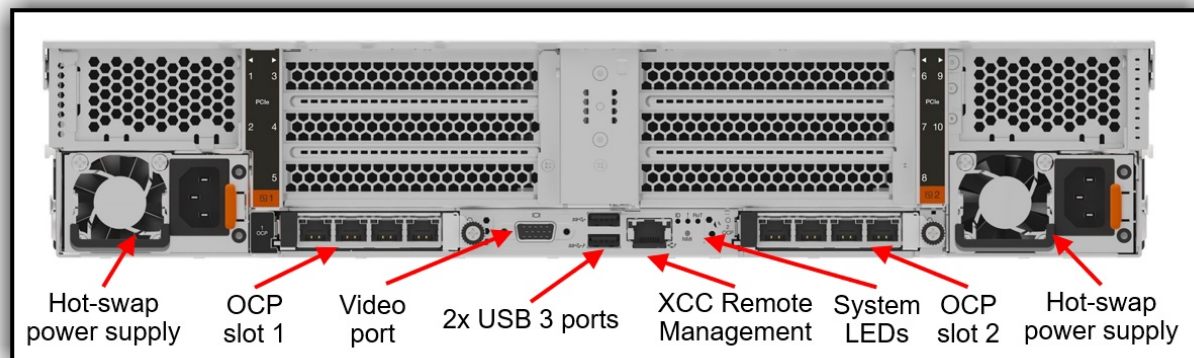

Figure 3. Rear view of the ThinkAgile MX650a V4 (configuration with six PCIe slots)

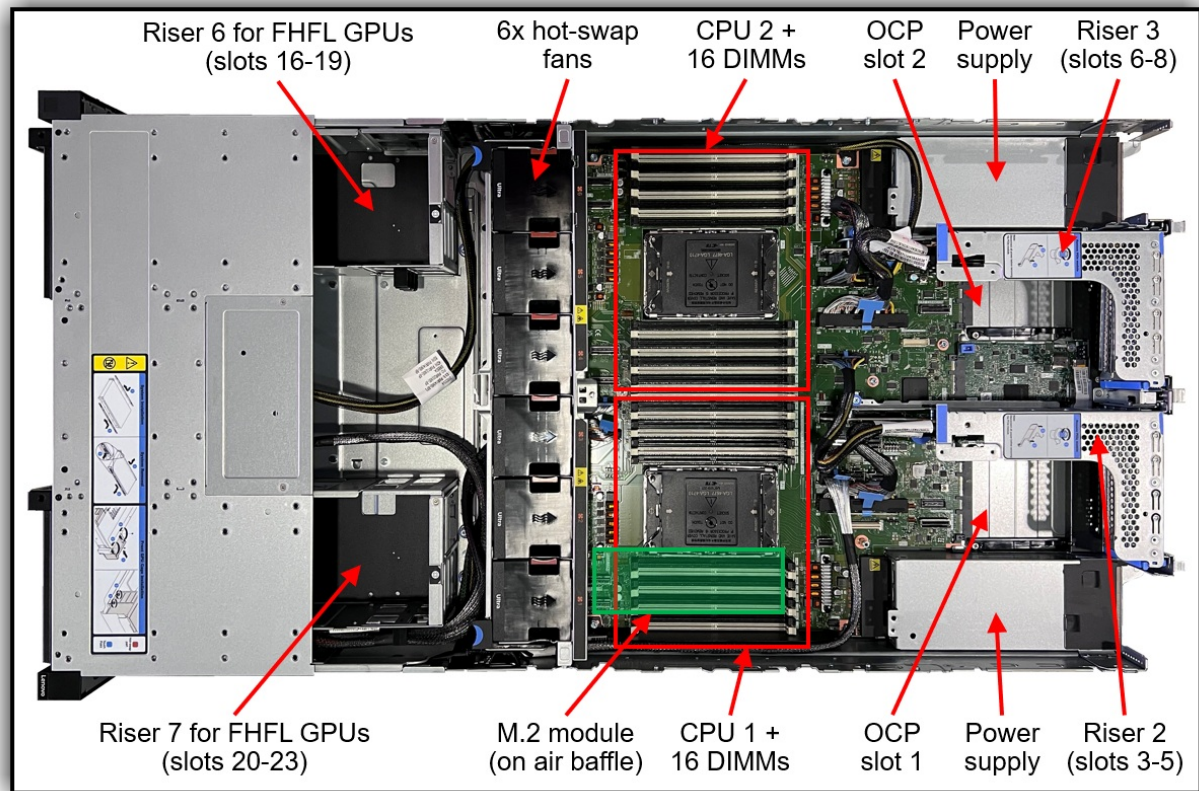The following figure shows the locations of key components inside the systems.

Figure 4. Internal view of the ThinkAgile MX650a V4

Standard specifications

The ThinkAgile MX650a V4 is based on the ThinkSystem SR650a V4 server.

The following table provides an overview of the MX650a V4 systems.

Table 1. Comparison of features

	ThinkAgile MX650a V4
Target workloads	Cloud, AI/ML, Database, VDI
Base MTM	7DFHCT02WW
Form Factor	2U
Base platform	SR650a V4
CPU	1x or 2x Intel Xeon 6 (Granite Rapids-SP)
Memory	- DDR5 memory operating up to 8000 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
Storage Options –Capacity Tier	Depending on configuration: 4-8x SSDs: 9600GB to 30.72TB 4-8x NVMe: 750GB to 7.68TB
Cache Tier	Depending on configuration: 2-4x SSDs: 800GB to 6.4TB 2-4x hot-pluggable NVMe: 960GB to 12.8TB
Drive configurations	All Flash
HBA	4350-16i HBA 440-16i HBA
Boot drives	2x M.2 non-hot-swap NVMe or SATA
OCP networking	2x OCP 3.0 rear-accessible slots with PCIe Gen 5 interface - Additional PCIe adapters supported 1GbE dedicated Management port
PCIe networking	- Supports PCIe 5.0 - Up to 6x rear PCIe slots - All slots are PCIe 5.0 - Riser cards are modular for easy upgrades - Supports a RAID/HBA in CFF form factor (does not occupy a PCIe slot
GPUs	- Supports up to 8x single-wide GPUs - Supports up to 4x double-wide GPUs
Hypervisor	- Azure Local OS preloaded - Windows Server 2025 Datacenter optional

The following table lists the standard specifications.

Table 2. Standard specifications

Components	Specification
Machine types	7DFH - 3 or 5 year warranty
Form factor	2U rack
Processor	One or two Intel Xeon 6700P-series or 6500P-series processors (formerly codenamed "Granite Rapids-SP"). 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
Memory	32 DIMM slots with two processors (16 DIMM slots per processor). Each processor has 8 memory channels, with 2 DIMMs per channel (DPC). 16 DIMM slots with 2 processors when the Compute Complex Neptune Core liquid cooling is used (machine type). 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 1PDC.
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), and memory mirroring.
Disk drive bays	- MX650a V4: - Front drive bays : 8x 2.5-inch - Rear drive bays: None - Combinations of SAS/SATA, NVMe are available M.2 support, for OS boot and drive storage support: 2x front or rear hot-swap M.2 drive bays, or - Internal M.2 module supporting up to two M.2 drives See Supported drive bay combinations for details. AnyBay bays support SAS, SATA or NVMe drives. NVMe bays only support NVMe drives.
Storage controller	- Up to 8x Onboard NVMe ports (RAID not supported) 12 Gb SAS/SATA non-RAID: 4350-16i HBA 440-16i HBA
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. One port can optionally be shared with the XClarity Controller 3 (XCC3) management processor for Wake-on-LAN and NC-SI support

Components	Specification
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 For 2.5-inch front drive configurations, the server supports the installation of a RAID adapter or HBA in a dedicated area that does not consume any of the PCIe slots.
GPU support	Supports up to 8x single-wide GPUs or up to 4x double-wide GPUs
Ports	Front: 1x USB 3.1 G1 (5 Gb/s) port, 1x USB 2.0 port (also for XCC local management), External diagnostics port, optional VGA port. Rear: 3x USB 3.1 G1 (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 slot 3). Internal: 1x USB 3.1 G1 connector for operating system or license key purposes
Cooling	6x (with two processors installed) or 5x (with one processor installed) 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.
Power supply	Up to two hot-swap redundant AC power supplies, 80 PLUS Platinum or 80 PLUS Titanium certification. 750 W, 1100 W, 1800 W, 2400 W and 2600W AC options, supporting 220 V AC. 750 W and 1100 W options also support 110V input supply. In China only, all power supply options support 240 V DC. Also available is a 1100W power supply with a -48V DC input.
Video	Embedded graphics with 16 MB memory with 2D hardware accelerator, integrated into the XClarity Controller 2 management controller. 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. Clarity Controller 3 (XCC3) embedded management based on the ASPEED AST2600 baseboard management controller (BMC), 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	• Azure Local OS preloaded • Windows Server 2025 Datacenter optional
Hardware warranty	Three-, four-, or five-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).
Software maintenance	Three-, four-, or five-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.).

Components	Specification
Weight	Maximum weight: 38.8 kg (85.5 lb)

Models

Factory-integrated models of the ThinkAgile MX650a V4 are configured by using the Lenovo Data Center Solution Configurator (DCSC), http://dcsc.lenovo.com

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

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. Configurations based on these MTMs cannot include controlled GPUs.
ThinkAgile MX650a V4	7DFHCTO2WW

Comparison with the ThinkSystem SR650a V4

The ThinkAgile MX650a V4 are based on the ThinkSystem SR650a V4 server, however there are key differences:

- No onboard SATA controller support
- No RAID adapter support for data drives
- No VROC RAID support for boot drives
- No mid-chassis drive bay support
- No SED drive support
- 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

Only certain network adapters have been certified for particular network traffic types in the Azure Local operating system. For details regarding which available network adapters can be used for each network traffic type, see Lenovo Certified Configurations for Azure Local – V2 Servers:
https://lenovopress.com/lp1520

To verify what specific hardware components are supported with the ThinkAgile MX650a V4, see the DCSC configurator:
https://dcsc.lenovo.com

Processors

The ThinkAgile ThinkAgile MX650a V4 supports the 6th Gen Intel Xeon Scalable Processor family.

The MX650a V4 supports one or two of the following Intel processors:

- Intel Xeon 6500-series with P-cores (formerly "Granite Rapids" or GNR)
- Intel Xeon 6700-series with P-cores (formerly "Granite Rapids" or GNR)

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 ThinkAgile MX650a V4 systems support the following processors.

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

Table 4. Processor choices

Part number	Feature	Description	Maximum supported MX650a V4
None	C5QQ	Intel Xeon 6505P 12C 150W 2.2GHz Processor	2
None	C5R6	Intel Xeon 6507P 8C 150W 3.5GHz Processor	2
None	C5RB	Intel Xeon 6511P 16C 150W 2.3GHz Processor*	1
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	C5R9	Intel Xeon 6521P 24C 225W 2.6GHz Processor*	1
None	C659	Intel Xeon 6527P 24C 255W 3.0GHz 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	C5QN	Intel Xeon 6731P 32C 245W 2.5GHz Processor*	1
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	C5QU	Intel Xeon 6741P 48C 300W 2.5GHz Processor*	1
None	C5R8	Intel Xeon 6747P 48C 330W 2.7GHz Processor	2
None	C5R1	Intel Xeon 6760P 64C 330W 2.2GHz Processor	2
None	C5QW	Intel Xeon 6761P 64C 350W 2.5GHz Processor*	1
None	C5QY	Intel Xeon 6767P 64C 350W 2.4GHz Processor	2
None	C5QP	Intel Xeon 6781P 80C 350W 2.0GHz Processor*	1
None	C5QM	Intel Xeon 6787P 86C 350W 2.0GHz Processor	2

* These processors are single-socket capable processors and are only available in configure-to-order builds or in pre-configured models. Not available as option part numbers. Processors must be configured with at least 256GB memory capacity and valid memory qty can only be 12, 16, 24 and 32.

Lenovo Processor Neptune Core Module - Open-loop liquid cooling

The MX650a 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.

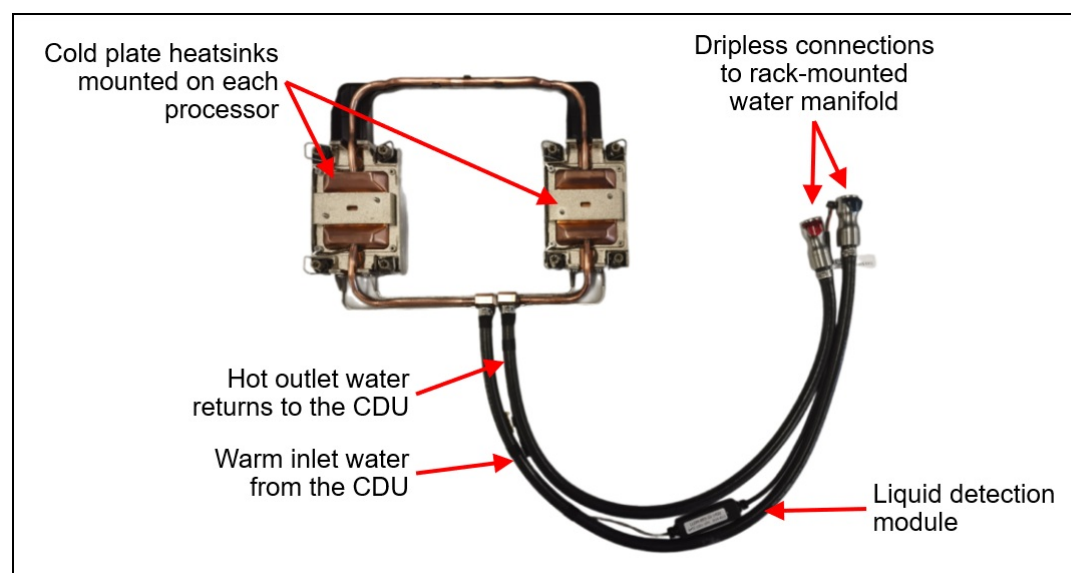The following figure shows the Lenovo Processor Neptune Core Module.

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 MX650a V4 uses Lenovo TruDDR5 memory operating at up to 8000 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

Water-cooled memory: The MX650a V4 can also be configure to implement water-cooling for installed memory DIMMs using the Lenovo Compute Complex Neptune Core Module. The server is limited to 16 DIMM slots (8 DIMMs per processor, 1 DIMM per channel). For more information see the Lenovo Compute Complex Neptune Core Module section.

Lenovo TruDDR5 memory uses the highest quality components that are sourced from Tier 1 DRAM suppliers and only memory that meets the strict requirements of Lenovo is selected. It is compatibility tested and tuned to maximize performance and reliability. From a service and support standpoint, Lenovo TruDDR5 memory automatically assumes the system warranty, and Lenovo provides service and support worldwide.

The following table lists the RDIMMs, 3DS RDIMMs, and MRDIMMs memory that are currently supported by the MX650a V4. These DIMMs are installed in the DIMM slots adjacent to the processors. The table also lists the supported quantities. The "CPU+Mem water cooled" DIMM quantity column is when the server is configured to use Lenovo Compute Complex Neptune Core Module for water-cooled memory.

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. Memory options

Part number	Feature	Description	Maximum supported MX650a 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
4X77A90996	BZ7C	ThinkSystem 48GB TruDDR5 6400MHz (2Rx8) RDIMM	32
3DS RDIMMs			
4X77A90994	C0U0	ThinkSystem 256GB TruDDR5 6400MHz (4Rx4) 3DS RDIMM	32
MRDIMMs (operate at 8000 MHz in the MX650a V4) (Note: Not all processors support MRDIMMs)			
4X77A90998	C0TY	ThinkSystem 32GB TruDDR5 8800MHz (2Rx8) MRDIMM	32
4X77A90999	C0TX	ThinkSystem 64GB TruDDR5 8800MHz (2Rx4) MRDIMM	32

Internal storage

The MX650a 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)

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 MX650a V4
Front 2.5-inch drive backplanes			
None	C3RT	ThinkSystem 2U V4 8x2.5" SAS/SATA Backplane	1
None	C46P	ThinkSystem 2U V4 8x2.5" NVMe Backplane	1

Boot drive enablement

For OS boot functions, the systems 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 MX650a V4
Controllers for RAID support of M.2 Drives			
4Y37A90064	C0JJ	ThinkSystem M.2 RAID B540p-2HS SATA/NVMe Adapter	1
4Y37A93746	C26V	ThinkSystem M.2 RAID B545i-2i SATA/NVMe Adapter	1

Controllers for internal storage

The ThinkAgile MX650a V4 support the following internal storage controllers.

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

Table 9. Controllers for internal storage

Part number	Feature	Description	Maximum supported MX650a V4
M.2 Drive Interposer			
None	C1LJ	Hot-Swap M.2 Drive Interposer	2
SAS/SATA HBA - PCIe			
4Y37A72481	BJHJ	ThinkSystem 4350-16i SAS/SATA 12Gb HBA	1
4Y37A09725	B8P1	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb Internal HBA	1
4Y37A78602	BM50	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb HBA	1

Internal drive options

This section lists the supported drives:

- Boot drives
- Internal drives for ThinkAgile MX650a V4

Boot drives

The ThinkAgile MX650a V4 systems support the following drive for boot functions.

Table 10. Boot drives

Part number	Feature	Description	Maximum supported MX650a V4
M.2 SATA drives			
4XB7A82287	BQ1Y	ThinkSystem M.2 5400 PRO 480GB Read Intensive SATA 6Gb NHS SSD	2
4XB7A82288	BQ20	ThinkSystem M.2 5400 PRO 960GB Read Intensive SATA 6Gb NHS SSD	2
M.2 NVME drives			
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

Internal drives for ThinkAgile MX650a V4

The following table lists the drives support in the ThinkAgile MX650a V4. The drives are classified as either Cache drives, Capacity drives, or both. The quantities listed in the table are the maximum supported for each drive option. For cache drives, a minimum of 2 and maximum of 4 drives is required.

Table 11. Drives supported in the ThinkAgile MX650a V4

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
2.5-inch hot-swap 6 Gb SATA SSDs						
4XB7A93092	C1X4	ThinkSystem 2.5" PM897a 960GB Mixed Use SATA 6Gb HS SSD	No	8	No	No
4XB7A93093	C1X5	ThinkSystem 2.5" PM897a 1.92TB Mixed Use SATA 6Gb HS SSD	No	8	No	No
4XB7A93094	C1X6	ThinkSystem 2.5" PM897a 3.84TB Mixed Use SATA 6Gb HS SSD	No	8	No	No
2.5-inch hot-swap PCIe 5.0 NVMe SSDs						
4XB7A93066	C0GK	ThinkSystem 2.5" U.2 PM9D3a 960GB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93067	C0GL	ThinkSystem 2.5" U.2 PM9D3a 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93068	C0GN	ThinkSystem 2.5" U.2 PM9D3a 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93069	C0GP	ThinkSystem 2.5" U.2 PM9D3a 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93095	C1WL	ThinkSystem 2.5" U.2 PM9D3a 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93097	C1WM	ThinkSystem 2.5" U.2 PM9D5a 800GB Mixed Use NVMe NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93098	C1WN	ThinkSystem 2.5" U.2 PM9D5a 1.6TB Mixed Use NVMe NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93099	C1WP	ThinkSystem 2.5" U.2 PM9D5a 3.2TB Mixed Use NVMe NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93100	C1WR	ThinkSystem 2.5" U.2 PM9D5a 6.4TB Mixed Use NVMe NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
4XB7A93101	C1WQ	ThinkSystem 2.5" U.2 PM9D5a 12.8TB Mixed Use NVMe NVMe PCIe 5.0 x4 HS SSD	No	8	No	No
2.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7A95049	C2BY	ThinkSystem 2.5" U.3 7500 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	8	No	No
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	8	No	No
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	8	No	No
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	8	No	No
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	8	No	No
4XB7A95054	C2BG	ThinkSystem 2.5" U.3 7500 MAX 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8	8	8	No
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8	8	8	No
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8	8	8	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8	8	8	No
4XB7A95058	C2BX	ThinkSystem 2.5" U.3 7500 MAX 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	8	8	8	No

Network adapters

The ThinkAgileMX650a V4 systems support the following networking options.

Only certain network adapters have been certified for particular network traffic types in the Azure Local operating system. For details regarding which available network adapters can be used for each network traffic type, see Lenovo Certified Configurations for Azure Local – V3 Servers: https://lenovopress.com/lp1741

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

Table 12. OCP network adapters

Part number	Feature	Description	Maximum supported MX650a V4
10 Gb Ethernet - 10GBASE-T			
4XC7A95696	C4GB	ThinkSystem Broadcom 57412 10GBase-T 4-Port OCP Ethernet Adapter	2
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
4XC7A80567	BPPW	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	2
4XC7A62582	BE4T	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port OCP Ethernet Adapter	2
100 Gb Ethernet			
4XC7A99190	C62H	ThinkSystem Nvidia ConnectX-6 Dx 100GbE QSFP56 2-port OCP Ethernet Adapter(Generic)	2

Table 13. PCIe network adapters

Part number	Feature	Description	Maximum supported MX650a V4
10 Gb Ethernet - 10GBASE-T			
4XC7A95697	C4GC	ThinkSystem Broadcom 57412 10GBase-T 4-Port PCIe Ethernet Adapter	4
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	6
25 Gb Ethernet			
4XC7A08238	BK1H	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-port PCIe Ethernet Adapter	6
4XC7A80566	BNWM	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter	4
4XC7A62580	BE4U	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port PCIe Ethernet Adapter	6
4XC7A99191	C62J	ThinkSystem Nvidia ConnectX-7 10/25GbE SFP28 4-Port PCIe Ethernet Adapter(Generic)	4
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 ThinkAgile MX650a 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 early in a project that includes the ThinkAgile MX Systems.

Table 14. GPU adapters

Part number	Feature	Description	Maximum supported MX650a 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

Software

The ThinkAgile MX650a V4 comes with Azure Local OS preinstalled. Customers can use existing Windows Server Datacenter software licenses, or they can purchase new software licenses from Lenovo or Microsoft. If the licenses are purchased from Lenovo, Windows Server can be factory-installed or shipped in the box for the installation at the customer site.

Table 15. Azure Local software selection options

Feature code	Description
MS Azure Local MX (Factory installed)	
BFXP	SW Stack MS Azure Stack HCI 23H2 - English (factory installed)

Configuration notes:

- The selection of Windows Server software licenses is optional.
- The quantity of core-based licenses should be sufficient to cover all processor cores in the system.
- Current supported version of Azure Local OS is 23H2

Warranty and Support

The ThinkAgile MX650a V4 ensures customers experience enhanced operational efficiency and support. Leveraging deep integration between Lenovo ThinkAgile hardware and Microsoft Azure Local software, it enables quicker issue resolution with single point of support for both hardware and software. Automated and jointly tested full-stack updates ensure seamless updates with just a single click, while the solution also lowers total service costs through automated end-to-end deployment workflows and life cycle management, empowering customers to streamline infrastructure management and devote more time to innovation.

The ThinkAgile MX650a V4 Solution can be configured with a three-, four-, or five-year hardware warranty with 24x7 ThinkAgile Premier Single Point of Support (Lenovo appliance hardware and Microsoft software) and various levels of coverage with a defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions. For more information refer to the Lenovo Support Plan – ThinkAgile MX Premier Solution support plan, available from https://support.lenovo.com/us/en/solutions/HT516695

The ThinkAgile MX650a V4 have a 3-year base warranty:

- 7D6S- 2U ThinkAgile MX650 V4 - 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 MX systems can optionally include Lenovo deployment services to get customers up and running quickly.

The following Lenovo custom installation services are optional for both MX Premier Solutions and MX Certified Nodes:

- Unpacking and inspecting the systems
- Mounting the systems (rack cabinet, desktop, stack, bookshelf, wall or ceiling, or rack installation)
- 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)

The following Lenovo deployment services are optional for both MX Premier Solutions and MX Certified Nodes:

- Conducting remote preparation and planning
- Verifying firmware versions and performing firmware updates, if needed
- Configuring XClarity Controller management settings
- Configuring Storage Spaces Direct
- Configuring Microsoft System Center and discovering hosts and storage (if System Center is used)
- Configuring Lenovo XClarity Administrator network settings and performing discovery and inventory (if XClarity is selected)
- Transferring knowledge
- Developing post-installation documentation

The following table lists ThinkAgile Health Check & Deployment offerings are available for ThinkAgile MX 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.

Table 16. ThinkAgile Health Check & Deployment offerings

Part number	Description
Onsite deployment services	
5MS7B09464	ThinkAgile MX Onsite Deployment (up to 2 nodes)
5MS7B09465	ThinkAgile MX Onsite Deployment (additional node)
Remote deployment services	
5MS7B09466	ThinkAgile MX Remote Deployment (up to 2 nodes)
5MS7B09467	ThinkAgile MX Remote Deployment (additional node)
Remote Health Check	
5MS7B00049	ThinkAgile MX 1X Remote Health Check (per 2-4 node cluster)
5MS7B00050	ThinkAgile MX 1X Remote Health Check (additional node)
5MS7B00051	ThinkAgile MX 1X Remote Health Check & Update (per 2-4 node cluster)
5MS7B00052	ThinkAgile MX 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.

Regulatory Compliance

The server conforms to the following standards:

- ANSI/UL 62368-1
- IEC 62368-1 (CB Certificate and CB Test Report)
- CSA C22.2 No. 62368-1
- Argentina IEC 62368-1
- Mexico NOM-019
- India BIS 13252 (Part 1)
- Germany GS
- TUV-GS (EN62368-1, and EK1-ITB2000)
- Brazil INMETRO
- South Africa NRCS LOA
- Ukraine UkrCEPRO
- Morocco CMIM Certification (CM)
- Russia, Belorussia and Kazakhstan, TP EAC 037/2016 (for RoHS)
- Russia, Belorussia and Kazakhstan, EAC: TP TC 004/2011 (for Safety); TP TC 020/2011 (for EMC)
- CE, UKCA Mark (EN55032 Class A, EN62368-1, EN55035, EN61000-3-11, EN61000-3-12, (EU) 2019/424, and EN IEC 63000 (RoHS))
- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 7, Class A
- CISPR 32, Class A, CISPR 35
- Korea KS C 9832 Class A, KS C 9835
- Japan VCCI, Class A
- Taiwan BSMI CNS15936, Class A; CNS15598-1; Section 5 of CNS15663
- Australia/New Zealand AS/NZS CISPR 32, Class A; AS/NZS 62368.1
- UL Green Guard, UL2819
- Energy Star 4.0
- EPEAT (NSF/ ANSI 426) Bronze
- Japanese Energy-Saving Act
- EU2019/424 Energy Related Product (ErP Lot9)
- TCO Certified
- China CCC certificate, GB17625.1; GB4943.1; GB/T9254
- China CECP certificate, CQC3135
- China CELP certificate, HJ 2507-2011

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. **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

2. **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

3. **Lenovo Cloud Architecture VTT: Drive Hybrid Cloud Conversations with ThinkAgile MX V4 Solutions**
2025-06-10 | 73 minutes | Employees and Partners

Join Amit Kulkarni, Lenovo Sr. Product Manager and Adam Mandelbloom, Lenovo Technical Marketing Manager for a focused session on the latest ThinkAgile MX V4 solutions with 6th Gen Intel® Xeon® Scalable processors, delivering top-tier performance, efficiency, and scalability for hybrid cloud and AI workloads. We'll explore how these advancements combined with Azure Local and Azure Arc, are transforming how businesses manage on-prem and cloud environments through a unified control plane.
Key topics include:
• Hybrid Cloud Integration with Azure Arc, AKS, and Azure Virtual Desktop optimized for local HCI environments
• VMware-to-Azure Local Migration strategies for customers looking to modernize legacy virtualization platforms

Tags: Client Virtualization, Cloud, Microsoft, Software Defined Infrastruture (SDI), ThinkAgile

Published: 2025-06-10
Length: 73 minutes

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

Course code: DVCLD223

4. **Lenovo Cloud Architecture VTT Follow up: Getting Started with ScopeSys: A Beginner's Guide**
2025-06-10 | 45 minutes | Employees Only

This training webinar on Scopesys sizing tool from Acuutech is a follow up to the recent webinar that occurred in February 2025. This training is designed to provide you as new users with an introduction to ScopeSys solution-scoping platform. This session will walk you through the essential first steps of getting started, including system access, navigation, and setup. We'll then dive into how to effectively capture a client's requirements and import OneIQ and RVTools output within the platform to leverage ScopeSys's intelligent recommendation engine to identify the most appropriate, tailored solution. Finally, we'll wrap up by showing you where to access helpful resources, tools, and support so you can continue building confidence and efficiency in using the tool.

David Monks, Software Developer for Acuutech is our guest speaker and leading you through this training session.
Agenda:
1. Welcome & Objectives
2. What is ScopeSys Used For?
3. How to Get Started
4. Entering a Client's Requirements and Importing OneIQ and RVTools output
5. Choosing a Solution
6. Where to Get Further Help
7. Q&A

Tags: Client Virtualization, Cloud, Microsoft, Sales Tools, Software Defined Infrastruture (SDI)

Published: 2025-06-10
Length: 45 minutes

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

Course code: DVCLD222

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. **Azure Local 101**
   2025-04-14 | 60 minutes | Employees and Partners

   In this 60-minute replay, Amit Kulkarni, Lenovo WW Azure Local / ThinkAgileMX Product Manager presented the basics of Azure Local. Amit reviewed Azure Local, licensing options and ThinkAgile MX models. Aaron Rothfuss NA Microsoft Product Manager contributed with recent uses cases for Azure Local.

   Tags: Microsoft, ThinkAgile

   Published: 2025-04-14
   Length: 60 minutes

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

   Course code: 041125

9. **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

10. **Lenovo VTT Cloud Architecture Session Lenovo ThinkAgile MX using Acuutech ScopeSys Sizing Tool**
2025-02-21 | 60 minutes | Employees Only

Complex clustered system design and ordering in seconds, not days with ScopeSys.

Are you finding designing Azure Local (Azure Stack HCI) and Windows Server solutions complicated? Taking hours or even days to work out the correct server specifications, networking and services required to meet your customer needs? With ScopeSys from Acuutech, go from customer requirements to full solution design and ordering in seconds.

Learn how ScopeSys from Acuutech, makes designing complex Azure Local and clustered Windows Server solution simple, from simple edge scenarios to large datacenter replacements, including multi-site topologies.
With a workload and requirements centric approach, design based on what your clients are using; VM, Kubernetes, VDI and GPU accelerated workloads, moving beyond traditional hardware component-based design.

Join Philip Moss, Acuutech Chief Product Officer, for this 90-minute, interactive session with live demos and Q&A, where he will demonstrate how easy it is to design both simple and complex solutions with ease. Even better, come armed with some of your active opportunities and we can build the correct solution for your next client together.

Tags: Cloud, Microsoft, Sales Tools, Technical Sales, ThinkAgile

Published: 2025-02-21
Length: 60 minutes

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

Course code: DVCLD219

11. **Lenovo Cloud Architecture VTT: Azure Migrate for migrating VMware VMs to Azure Local instance based on Lenovo MX**
2025-01-29 | 70 minutes | Employees Only

Now customers can use the Azure Migrate platform to move on-premises VMware VMs to Azure Local instance based on Lenovo MX.
Azure Migrate is a central hub for tools to discover, assess, and migrate on-premises servers, apps, and data to the Microsoft Azure cloud. Azure Local (previously Azure Stack HCI) is a hyperconverged infrastructure system solution that hosts virtualized Windows and Linux workloads in a hybrid environment, on premise on Lenovo ThinkAgile MX.

Please join Per Ljungstrom, Lenovo Principal TC, EMEA for this informative webinar.

Tags: Cloud, Microsoft, Technical Sales, Technology solutions, ThinkAgile

Published: 2025-01-29
Length: 70 minutes

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

Course code: DVCLD218

12. **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

13. **Lenovo Client Virtualization Solution Options and Concept**
2024-12-10 | 30 minutes | Employees and Partners

This 30-minute e-learning is designed to give Lenovo technical, general sellers and partners detailed information about the LCV solution options and best practices to ensure alignment with the customer on the solution concept.

Tags: Client Virtualization, Microsoft, Storage, ThinkAgile, ThinkSystem, VMware

Published: 2024-12-10
Length: 30 minutes

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

Course code: DCV234r4

14. **Partner Technical Webinar - Overview - Azure Stack HCI**
2024-11-19 | 60 minutes | Employees and Partners

November 15, 2024 – In this 60-minute webinar Aaron Rothfuss, and Philip Moss from Acuutech share the positioning of Azure Stack HCI, Azure Migrate, and Acuutech SCOPSIS.

Tags: Microsoft, ThinkAgile

Published: 2024-11-19
Length: 60 minutes

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

Course code: 111524

15. **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

16. **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

17. **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

18. **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

19. **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

20. **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

21. **Partner Technical Webinar - Latest on Azure Stack HCI and ThinkAgile MX**
    2024-07-01 | 60 minutes | Employees and Partners

    In this 60-minute replay, Phil Searles discussed the Thinkagile MX455 and delivered a REPEAT to the very popular Azure Shack HCI. Phil and Amit also shared some announcements such as the ThinkAgile MX450/5, Premier, and OEM skus.

    Tags: Advanced DataCenter, Cloud, Microsoft, Software Defined Infrastruture (SDI), ThinkAgile

    Published: 2024-07-01
    Length: 60 minutes

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

    Course code: 06282024

22. **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

23. **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

24. **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

25. **Lenovo Azure Stack Solutions Overview**
2023-11-02 | 15 minutes | Employees and Partners

In this course, Eric Mills presents the new Microsoft Azure Stack family and Lenovo ThinkAgile MX server, offering detailed information on Hub and Edge.

Upon completion of this training, you will be able to:
• List the solutions of the Microsoft Azure Stack family
• Name the Lenovo hardware for Microsoft Azure Stack family

Tags: Cloud, Microsoft, ThinkAgile

Published: 2023-11-02
Length: 15 minutes

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

Course code: DMXF100

26. **Lenovo Azure Stack HCI Solution Overview**
2023-11-02 | 27 minutes | Employees and Partners

In this course, watch Phillip Moss define the Microsoft Azure HCI solution. He walks your though the technologies the HCI solution is built on and the business value it can bring to your customers.

Upon completion of this training, you will be able to:
• Identify the core features of Azure Stack HCI
• Identify the key benefits of an Azure Stack HCI solution
• Describe Storage Spaces Direct and it's key features

Tags: Cloud, Microsoft, Server, ThinkAgile

Published: 2023-11-02
Length: 27 minutes

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

Course code: DMXF101

27. **Azure Stack HCI Solution Selling Tips**
2023-11-01 | 8 minutes | Employees and Partners

In this course Eric Mills provides useful selling tips for the ThinkAgile MX solution with Azure Stack HCI.

Tags: Microsoft, ThinkAgile

Published: 2023-11-01
Length: 8 minutes

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

Course code: DMXF107

28. **Azure Stack HCI Licensing**
2023-10-30 | 8 minutes | Employees and Partners

In this course, Phillip Moss and Eric Mills discuss the licensing for the Azure Stack HCI solution.

Tags: Microsoft, ThinkAgile

Published: 2023-10-30
Length: 8 minutes

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

Course code: DMXF105

29. **Azure Stack HCI Core Components and Features**
2023-10-30 | 15 minutes | Employees and Partners

In this course, Phillip Moss, with an assist from Cosmos Darwin discuss the core components and features of the Azure Stack HCI solution. The course further details each of the components, features and the role it plays in the HCI.

Tags: Microsoft, ThinkAgile

Published: 2023-10-30
Length: 15 minutes

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

Course code: DMXF103

30. **Azure Stack HCI Management**
2023-10-30 | 16 minutes | Employees and Partners

In this course, Phillip Moss, Eric Mills and Cosmo Darwin take turns discussing the number of available options to manage the Microsoft Azure HCI solution. The course briefly discusses each of the management platforms and how each is used to manage the HCI solution and its integration with Lenovo's XClarity hardware management.

Tags: Microsoft, ThinkAgile

Published: 2023-10-30
Length: 16 minutes

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

Course code: DMXF102

31. **Azure Stack HCI Applications, Workloads and Hybrid Integration**
2023-10-30 | 28 minutes | Employees and Partners

In this course, Cosmos Darwin and Phillip Moss discuss the primary applications and workloads for the Azure Stack HCI solution. Phillip continues to further discusses the Hybrid Integration Services available to your customers.

Course Objectives:
•Identify the 5 primary applications for Azure Stack HCI
•Describe the Azure Stack HCI co-existence with existing infrastructure, VDI, and scale capacity
•Discuss the Azure Stack HCI integration with the public cloud and Azure Services

Tags: Cloud, Microsoft, Technology solutions, ThinkAgile

Published: 2023-10-30
Length: 28 minutes

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

Course code: DMXF104

32. **ThinkAgile Accelerating Cloud Agility: MX Series Technical Presentation**
2023-07-28 | 45 minutes | Employees and Partners

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

Tags: ThinkAgile

Published: 2023-07-28
Length: 45 minutes

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

Course code: DMXT201

33. **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

Related publications and links

For more information, see these resources:

- Lenovo ThinkAgile MX Series product page
  https://www.lenovo.com/us/en/data-center/software-defined-infrastructure/ThinkAgile-MX-Certified-Node/p/WMD00000377
- Microsoft Azure Local documentation
  https://docs.microsoft.com/en-us/azure-stack/hci/overview
- Lenovo Data Center Solution Configurator (DCSC):
  https://dcsc.lenovo.com
- Lenovo ThinkAgile MX for Microsoft Azure Stack HCI Best Recipes
  https://datacentersupport.lenovo.com/us/en/solutions/ht507406

Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- Hyperconverged Infrastructure
- ThinkAgile MX Series for Microsoft Azure Local

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