Lenovo ThinkAgile MX650 V3 2U Premier Solution, Integrated System and Certified Node

Product Guide (withdrawn product)

The Lenovo ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes 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 5th Generation Intel Xeon Scalable processors (formerly codenamed "Emerald Rapids) and 4th Generation Intel Xeon Scalable processors (formerly codenamed "Sapphire Rapids). The MX650 V3 delivers fully validated and integrated Lenovo hardware and firmware that is certified for Microsoft Azure Local solutions.

The MX650 V3 are available either as a Premier Solution, Integrated System or Certified Node:

The ThinkAgile MX650 V3 Premier Solution 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 PR (Solution Builder Extension for Premier Solution), 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.

ThinkAgile MX650 V3 Integrated System deliver fully validated and integrated Lenovo hardware and firmware, certified and preloaded with the latest Microsoft Azure Local software. The customers have the choice to purchase the licenses via subscription or via perpetual Azure Stack Local OEM license bundle. They also include ThinkAgile Premier support with one single point of contact for support of the hardware and software.

ThinkAgile MX650 V3 Certified Nodes deliver fully validated Lenovo hardware and firmware, certified and can be preloaded with latest Microsoft Azure Local software. The customers have the choice to purchase the licenses via subscription or via perpetual Azure Local OEM license bundle.

Figure 1. Lenovo ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes with 2.5-inch drive bays

Did you know?

The ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes 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 MX650 V3 Premier Solution and Integrated Systems offer ThinkAgile Premier Single Point of Support for quick 24/7 problem reporting and resolution.

Key features

Combining performance and flexibility, the ThinkAgile MX650 V3 systems are a great choice for enterprises of all sizes. The systems offer a broad selection of processors, memory and drives, 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 platforms offer the choice of Premier Solution, Integrated System or Certified Node with Azure Local solution. These validated platforms help modernize on-premises infrastructure with pre-tested, pre-configured, 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.

- ThinkAgile MX Premier Solutions are 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 also includes Lenovo white glove deployment services to get customers up and running quickly.
- The integrated systems include the Azure Local operating system, which is delivered as an Azure subscription service via the Microsoft CSP program. It also includes 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 certified nodes deliver fully validated and integrated Lenovo hardware and firmware that is certified for Microsoft Azure Local solutions. These HCI Certified Nodes have the option of Windows Server 2019 Datacenter Edition for HCI functionality, and guest licenses are included.

Premier Solution 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 through Windows Admin Center (WAC) in the Azure Portal.
- 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 2022 Datacenter license if unlimited guest OS VMs are desired.
- Bundled with Premier Support that provides a Single Point of Support for quick 24/7 problem reporting and resolution.
- Available with Lenovo white glove deployment services to get customers up and running quickly.

Integrated System features

The ThinkAgile MX Integrated System offers the following key features:

- Quick and convenient path to implement a hyperconverged solution powered by the new 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 Local with unified single-pane-of-glass for creating and managing VMs, S2D volumes, and virtual networks through Windows Admin Center.
- Consistent, low latency performance with hypervisor-embedded architecture, built-in read and write cache, and support for NVMe PCIe drives.
- Provides per-VM storage performance management with policy-driven Quality of Service (QoS) and continuous built-in monitoring and alerting with cluster-wide performance and capacity metrics.
- 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.
- Built on proven and reliable Lenovo ThinkSystem servers that provide compute power and space efficiency for a variety of workloads and applications.
- Provides comprehensive hardware management with advanced systems management capabilities with XClarity
- Delivers fully validated and integrated hardware and firmware that is certified for Microsoft Azure Local solutions.
- Ready for out-of-box deployment with the mandatory Azure Local OS preloaded, with the option to purchase a Windows Server 2019 Datacenter or Windows Server 2022 Datacenter license if unlimited guest OS VMs are desired.
- Includes Lenovo ThinkAgile Premier Single Point of Support for quick 24/7 problem reporting and resolution.
- Optional Lenovo deployment services to get customers up and running quickly.

Certified Node features

The ThinkAgile MX Certified Node offers the following key features:

- Quick and convenient path to implement a hyperconverged solution powered by Windows Server 2019 Datacenter or Windows Server 2022 Datacenter with Hyper-V virtualization, Microsoft Storage Spaces Direct (S2D), Software Defined Storage (SDS), and Software Defined Networking (SDN) network virtualization.
- Streamlined management of Azure Local with unified single-pane-of-glass for creating and managing VMs, S2D volumes, and virtual networks through Windows Admin Center.
- Consistent, low latency performance with hypervisor-embedded architecture, built-in read and write cache, and support for NVMe PCIe drives.
- Provides per-VM storage performance management with policy-driven Quality of Service (QoS) and continuous built-in monitoring and alerting with cluster-wide performance and capacity metrics.
- 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.
- Built on proven and reliable Lenovo ThinkSystem servers that provide compute power and space efficiency for a variety of workloads and applications.
- Provides comprehensive hardware management with advanced systems management capabilities.
- Delivers fully validated and integrated hardware and firmware that is certified for Microsoft Azure Local solutions.
- Ready for out-of-box deployment with the optional Windows Server 2019 Datacenter, Windows Server 2022 Datacenter, or Azure Local OS preload.
- Provide flexibility in using the existing Microsoft Windows Server 2019 or 2022 enterprise license agreements or purchasing new software licenses from Microsoft or Lenovo.
- Optional Lenovo deployment services to get customers up and running quickly.

Hardware features

The ThinkAgile MX650 V3 are based on the SR650 V3 and have the following hardware features:

Scalability and performance

The ThinkAgile MX650 V3 offer numerous features to boost performance, improve scalability and reduce costs:

- Supports one or two fifth-generation Intel Xeon Processor Scalable processors
  - Up to 64 cores and 128 threads
  - Core speeds of up to 3.9 GHz
  - TDP ratings of up to 350 W
- Supports one or two fourth-generation Intel Xeon Processor Scalable processors
  - Up to 60 cores and 120 threads
  - Core speeds of up to 3.7 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 5600 MHz (5th Gen processors) or 4800 MHz (4th Gen processors)
  - Supports 2 DIMMs per channel operating at 4800 MHz (5th Gen processors) or 4400 MHz (4th Gen processors)
  - Using 256GB 3DS RDIMMs, the server supports up to 8TB of system memory
- Supports up to eight single-width GPUs or three double-wide GPUs, for substantial processing power in a 2U system.
- Configurations with 2.5-inch drives support up to 24x hot-swap drives, all front or rear accessible
- Configurations with 3.5-inch drives support up to 12x 3.5-inch hot-swap front-accessible drives plus either 4x 3.5-inch or 4x 2.5-inch hot-swap rear-accessible drives
- Supports 16x 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 12x SATA drives using the onboard SATA controller (no additional adapter needed), enabling lower cost, high capacity storage solution for cold or archival storage workloads.
- Supports high-speed HBA controllers providing 12 Gb SAS connectivity to the drive backplanes.
- Supports up to two externally accessible 7mm hot-swap drives with RAID functionality for operating system boot functions.

- Supports M.2 drives for convenient operating system boot functions. Available M.2 adapters support two M.2 drives in a RAID 1 configuration for performance and reliability.
- The server has a dedicated industry-standard OCP 3.0 small form factor (SFF) slot, with a PCIe 4.0 x16 interface, 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.
- The server offers up to eight PCIe 5.0 slots, all with rear access, plus an internal bay for a cabled HBA, plus a slot dedicated to the OCP adapter.

Availability and serviceability

The ThinkAgile MX650 V3 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.
- A pair of rear-accessible 7mm hot-swap boot drives can be accessed without removing the cover or powering down the server.
- 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 2 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 2 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 or one-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 MX650 V3:

- The server includes an XClarity Controller 2 (XCC2) to monitor server availability. Optional upgrade to XCC Platinum to provide remote control (keyboard video mouse) functions, support for the mounting of remote media files (ISO and IMG image files), boot capture, power capping and new XCC2 Platinum features. New XCC2 Platinum features include System Guard, new security modes including a CNSA-compliant mode, FIPS 140-3 and NIST 800-193 support, and a new Neighbor Group feature.
- 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 MX650 V3 offer the following energy-efficiency features to save energy, reduce operational costs, and increase energy availability:

- 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.

- Optional 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 MX650 V3 Premier Solution, Integrated Systems and Certified Nodes are based on the ThinkSystem SR650 V3 server.

The following figure shows the front of the ThinkAgile MX650 V3 with 2.5-inch drives.

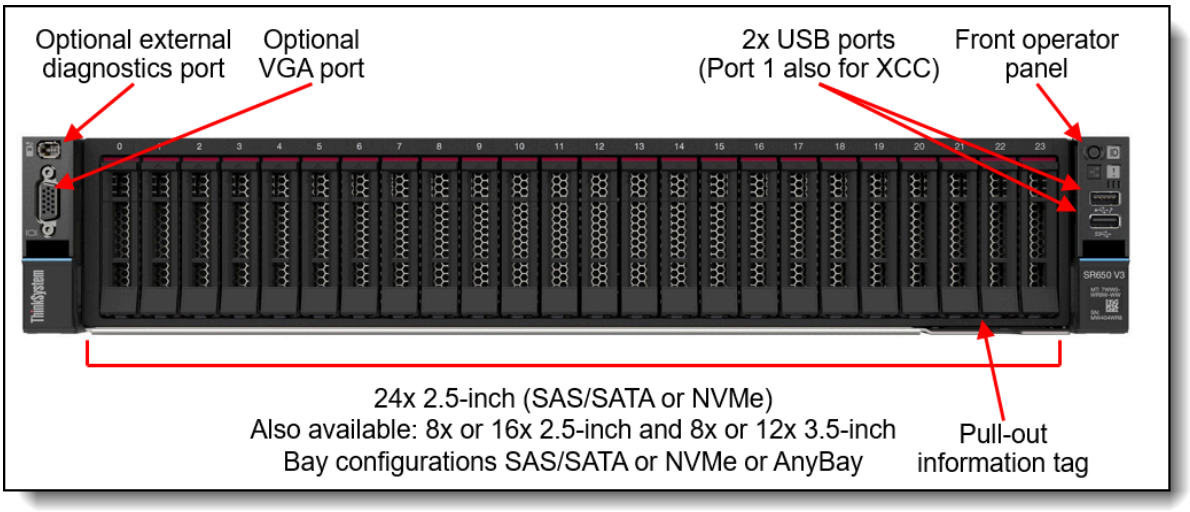

Figure 2. Front view of the ThinkAgile MX650 V3 with 2.5-inch drives

The following figure shows the front of the ThinkAgile MX650 V3 with 3.5-inch drives.

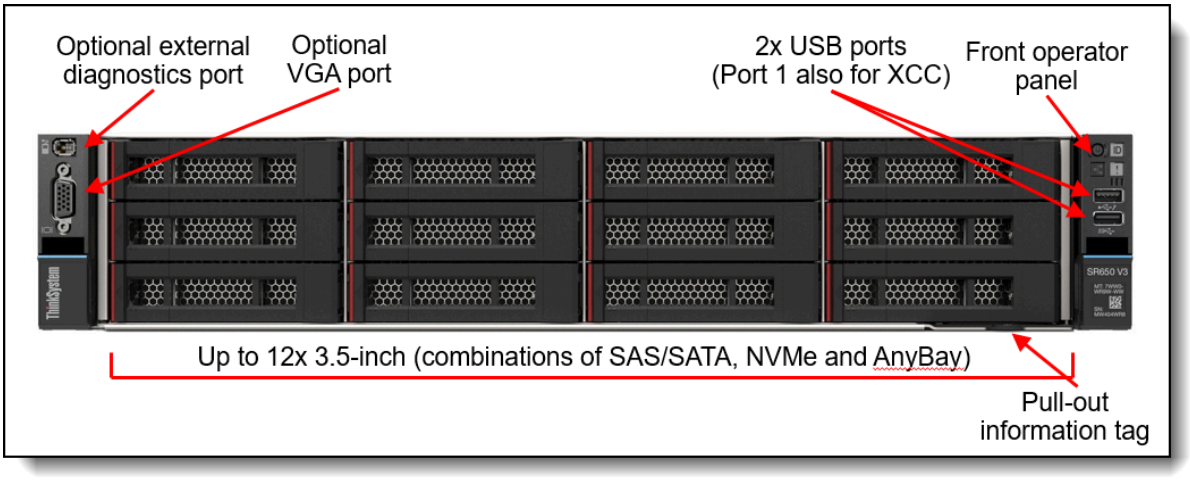

Figure 3. Front view of the ThinkAgile MX650 V3 with 3.5-inch drives

The following figure shows the components visible from the rear of the system. The figure shows one configuration, with eight PCIe slots, however there are additional rear configurations which include 3.5-inch drive bays, 2.5-inch drive bays, or 7mm drive bays.

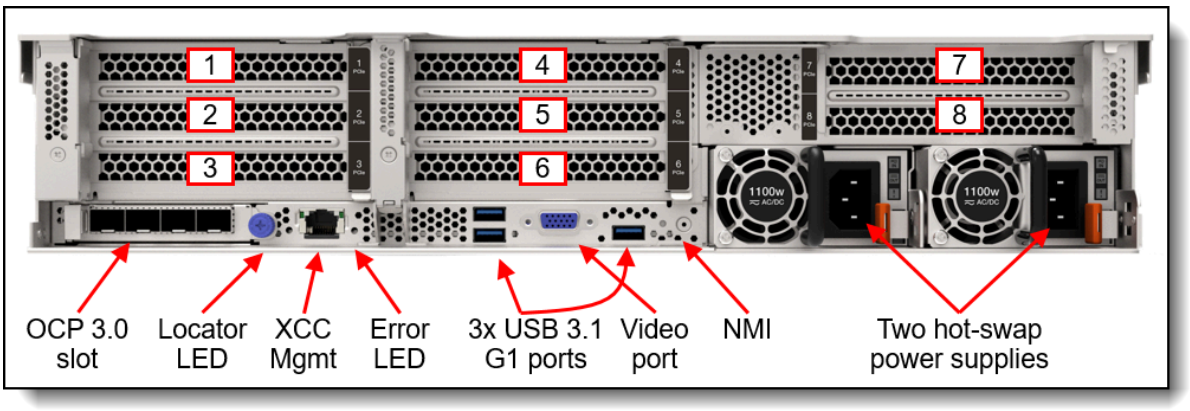

Figure 4. Rear view of the ThinkAgile MX650 V3 (configuration with eight PCIe slots)

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

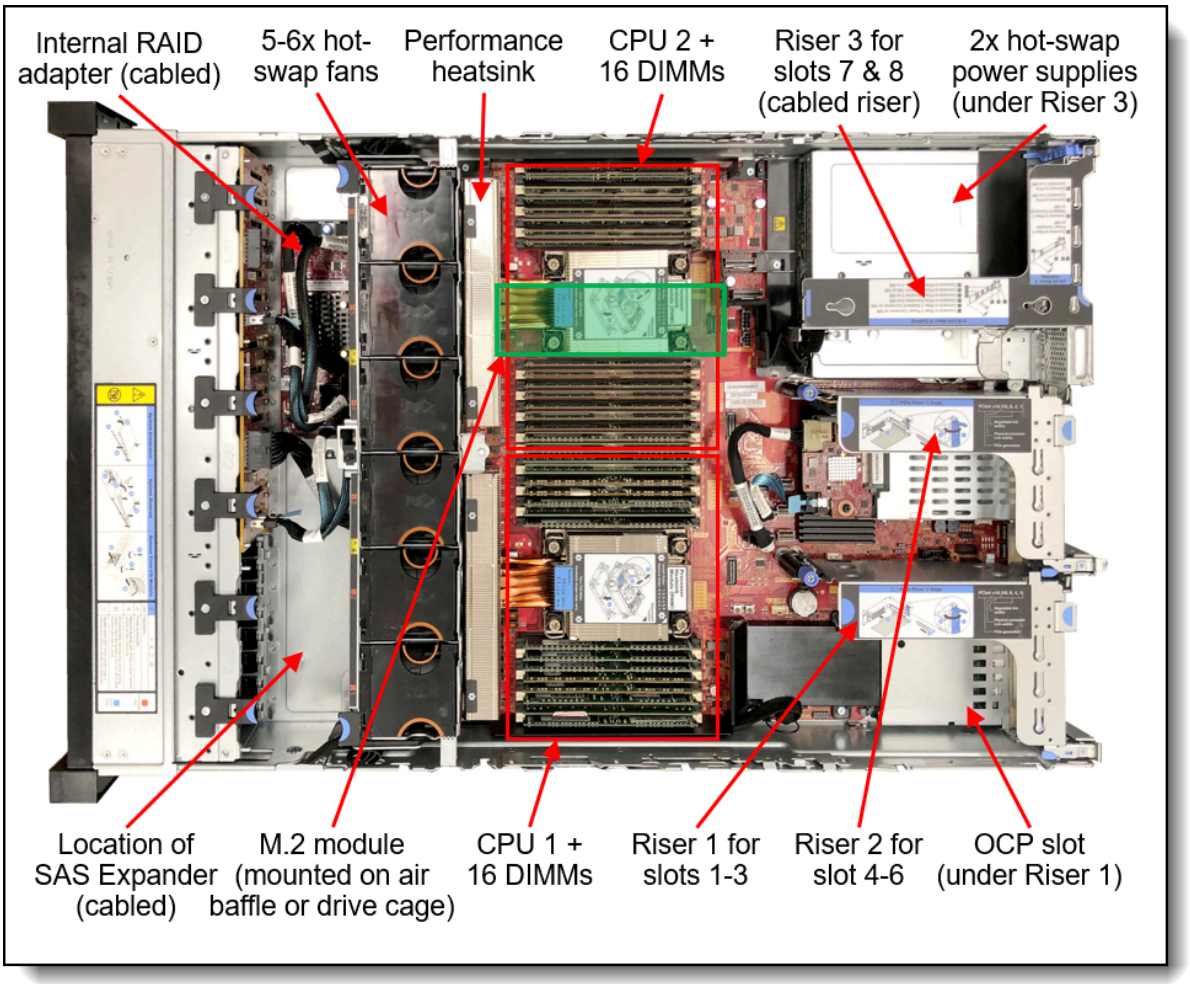

Figure 5. Internal view of the ThinkAgile MX650 V3

Standard specifications

The ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes are based on the ThinkSystem SR650 V3 server.

The following table provides an overview comparison between the MX systems.

Table 1. Comparison of features

	MX650 V3 Premier	**MX650 V3 IS**	**MX 650 V3 CN**
MX offering type	Premier Solution	Integrated System	Certified Node
Target workloads	AI/ML, Database, VDI	Database, VDI	Database, VDI, stretched cluster
Base MTM	7DKBCTO1WW 7DKBCTOAWW (Ctrl GPU)	7D6SCTO1WW 7D6SCTOAWW (Ctrl GPU)	7D6SCTO2WW 7D6SCTOAWW (Ctrl GPU)
Form Factor	2U	2U	2U
Base platform	SR650 V3	SR650 V3	SR650 V3
CPU	1x or 2x Intel Xeon SP Gen 5 (Emerald Rapids) or Gen 4 (Sapphire Rapids)	1x or 2x Intel Xeon SP Gen 5 (Emerald Rapids) or Gen 4 (Sapphire Rapids)	1x or 2x Intel Xeon SP Gen 5 (Emerald Rapids) or Gen 4 (Sapphire Rapids)
Memory	32x DDR 5 5600 MHz (8TB maximum)	32x DDR 5 5600 MHz (8TB maximum)	32x DDR 5 5600 MHz (8TB maximum)

Drive Bays	• Front bay choices:
	  ◦ 16x 3.5" SAS/SATA
	  ◦ 28x 2.5" SAS/SATA
		• Front bay choices:
		  ◦ 12x 3.5" SAS/SATA
		  ◦ 16x 2.5" SAS/SATA
		• Rear bay choices
		  ◦ 4x or 8x 2.5" SAS/SATA
			• Front bay choices:
			  ◦ 12x 3.5" SAS/SATA
			  ◦ 16x 2.5" SAS/SATA
			• Rear bay choices
			  ◦ 4x or 8x 2.5" SAS/SATA

Storage Options – Capacity Tier	Depending on configuration: 4-28x SSDs: 480GB to 7.68TB 4-24x NVMe: 750GB to 7.68TB	Depending on configuration: 4-14x HDDs: 1TB to 14TB 4-28x SSDs: 480GB to 7.68TB 4-24x NVMe: 750GB to 7.68TB	Depending on configuration: 4-10x HDDs: 600GB to 14TB 4-12x SSDs: 480GB to 7.68TB 4-12x NVMe: 750GB to 7.68TB 4-16x E1.S NVMe: 4TB

	MX650 V3 Premier	**MX650 V3 IS**	**MX 650 V3 CN**
Cache Tier	Depending on configuration: 2-6x SSDs: 800GB to 6.4TB 2-8x hot-pluggable NVMe: 750GB to 6.4TB	Depending on configuration: 2-4x SSDs: 800GB to 6.4TB 2-4x hot-pluggable NVMe: 750GB to 6.4TB	Depending on configuration: 2-4x SSDs: 800GB to 6.4TB 2-4x hot-pluggable NVMe: 750GB to 6.4TB
Drive configurations	All Flash	All Flash or Hybrid	All Flash or Hybrid
HBA	• 440-8i HBA • 440-16i HBA	• 440-8i HBA • 440-16i HBA	• 440-8i HBA • 440-16i HBA
Boot drives	• 2x M.2 non-hot-swap SATA • 2x 7mm hot-swap drives	• 2x M.2 non-hot-swap SATA • 2x 7mm hot-swap drives	• 2x M.2 non-hot-swap SATA • 2x 7mm hot-swap drives
OCP networking	1x OCP 3.0 adapter: 1Gb, 10Gb, 25Gb	1x OCP 3.0 adapter: 1Gb, 10Gb, 25Gb	1x OCP 3.0 adapter: 1Gb, 10Gb, 25Gb
PCIe networking	Up to 8x adapters: 1Gb, 10Gb, 25Gb, 100Gb	Up to 8x adapters: 1Gb, 10Gb, 25Gb, 100Gb	Up to 8x adapters: 1Gb, 10Gb, 25Gb, 100Gb, 200Gb, 400Gb
GPUs	3x DW GPU up to 300W each 8x SW GPU up to 75W each 6x SW GPU up to 150W each	3x DW GPU up to 300W each 8x SW GPU up to 75W each 6x SW GPU up to 150W each	3x DW GPU up to 300W each 8x SW GPU up to 75W each 6x SW GPU up to 150W each
Hypervisor	• Azure Local MX Premier preloaded • Windows Server 2022 Datacenter optional	• Azure Local OS preloaded • Windows Server 2019 Datacenter optional • Windows Server 2022 Datacenter optional	• Windows Server 2019 Datacenter optional • Windows Server 2022 Datacenter optional • Azure Local OS optional

The following table lists the standard specifications.

Table 2. Standard specifications

Components	Specification
Machine types	7DKB (Premier Solution) 7D6S - 3 year warranty (Integrated System and Certified Node)
Form factor	2U rack
Processor	Supports one or two 5th generation Intel Xeon Scalable processor (formerly codenamed "Emerald Rapids") or 4th-generation Intel Xeon Scalable processor (formerly codenamed "Sapphire Rapids"). Supports up to 64 cores per 5th generation processor and up to 60 cores per 4th generation processor, core speeds of up to 3.9 GHz, and TDP ratings of up to 350 W.
Chipset	Intel C741 "Emmitsburg" chipset, part of the platform codenamed "Eagle Stream"
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, 9x4 RDIMMs, and 3DS RDIMMs are supported. DIMM slots are shared between standard system memory and persistent memory. DIMMs operate at up to 5600 MHz at 1 DPC and up to 4400 MHz at 2 DPC.
Memory maximum	With RDIMMs: Up to 8TB by using 32x 256GB 3DS RDIMMs
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs excluding 9x4 RDIMMs, requires Platinum or Gold processors), and memory mirroring.
Disk drive bays	Front drive bays: • 12x 3.5" SAS/SATA or 12x 3.5" AnyBay • 16x 2.5" SAS/SATA/NVMe or 16x 2.5" SAS/SATA + 8x AnyBay Rear drive bays: • 4x or 8x 2.5" SAS/SATA • 4x or 8x 2.5-inch NVMe OS boot support: • Internal M.2 module supporting up to two M.2 SATA drives • Rear accessible 2x 7mm hot-swap drives, SATA or NVMe

Storage controller	• Onboard NVMe ports (RAID not supported)
	• 12 Gb SAS/SATA non-RAID:
	  ◦ 440-8i
	  ◦ 440-16i

Network interfaces	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 and 25GbE network connectivity. One port can optionally be shared with the XClarity Controller 2 (XCC2) management processor for Wake-on-LAN and NC-SI support.
PCIe slots	Up to 8x PCIe 5.0 slots, all full height slots and with rear access, plus a slot dedicated to the OCP adapter. Slot availability is based on riser selection and rear drive bay selection. Slots 4, 5, and 6 (riser 2) require two processors. Slots are configured using three riser cards. Riser 1 (slots 1-3) and Riser 2 (slots 4-6) are installed in slots in the system board, Riser 3 (slots 7-8) is cabled to ports on the system board. 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

Components	Specification
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	For Premier Solutions: Management via Azure Arc and Windows Admin Center. Integration with Lenovo XClarity makes cluster management, hardware and software update management, and enforcement of site-wide policies easy for IT administrators. Using SBE Premier (Solution Builder Extension for Premier Solution), the best recipes can be acquired via a one-click update. For Integrated Systems and Certified nodes: Operator panel with status LEDs. Optional External Diagnostics Handset with LCD display. Models with 8x or 16x 2.5-inch front drive bays can optionally support an Integrated Diagnostics Panel. XClarity Controller 2 (XCC2) embedded management controller, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. Optional XClarity Controller Platinum to enable remote control and other functions.
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	• Premier Solution: MS Azure Local MX Premier OS preloaded • Integrated System: Azure Local OS preloaded • Certified Nodes: Windows Server 2019 Datacenter, Windows Server 2022 Datacenter, Azure Local OS (all optional)

Components	Specification

Hardware warranty	• Premier Solutions: Lenovo Premier Support - Dependent on the customer's needs, support is available for 3 to 5 years.
	  ◦ Premier solution includes the following additional features:
	  ▪ L1/L2 Software support
	  ▪ Full stack cluster aware update
	  ▪ Health pre-check
	  ▪ Lenovo Open Cloud Automation for edge deployment
	  ▪ White glove deployment services
	  ▪ Cloud deployment with Azure Local version 23H2 and above
	• Integrated Systems: 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).
	• Certified Nodes: Three, four, or five-year customer-replaceable unit and onsite limited warranty with selectable service levels: 9x5 coverage with next business day (NBD) parts delivered (base warranty), 9x5 coverage with NBD onsite response (Foundation Service), 24x7 coverage with 4-hour onsite response or 24-hour committed repair (select areas) (Essential Service), or 24x7 coverage with 2-hour onsite response or 6-hour committed repair (select areas) (Advanced Service). Also available are 1-year and 2-year post-warranty extensions, YourDrive YourData, and Enterprise Software Support.

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: 764 mm (30.1 in.)
Weight	Maximum: 38.8 kg (85.5 lb)

Models

Factory-integrated models of the Premier Solutions, Integrated Systems and Certified Nodes are configured by using the Lenovo Data Center Solution Configurator (DCSC), http://dcsc.lenovo.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.
- **GPU Controlled models** are used to order any of the controlled GPUs and accelerators. Controlled models are not available in affected markets. If you start from a controlled model, your configuration must include a controlled GPUs.

Note:

- For all models listed in the GPU **Controlled models** column, one of the controlled GPUs *must* be selected in the DCSC configurator. DCSC will display an error if you configuration does not include one of the controlled GPUs.
- It is highly recommended to engage a Lenovo representative early in a project that includes the ThinkAgile MX Series Premier Solutions, Integrated Systems and Certified Nodes

The following table lists the base CTO models.

Table 3. CTO base models

Server model	Standard Open models	GPU Controlled models
	These CTO models are available in all markets. Configurations based on these MTMs cannot include controlled GPUs.	These CTO models are not available in affected markets. Configurations based on these MTMs must include controlled GPUs.
ThinkAgile MX650 V3 Premier Solution	7DKBCTO1WW	7DKBCTOAWW
ThinkAgile MX650 V3 Integrated System	7D6SCTO1WW	7D6SCTOAWW
ThinkAgile MX650 V3 Certified Node	7D6SCTO2WW	7D6SCTOBWW

Comparison with the ThinkSystem SR650 V3

The ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes are based on the ThinkSystem SR650 V3 server, however there are key differences:

- No persistent memory support
- 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 SR650 V3, see the SR650 V3product guide:
https://lenovopress.com/lp1601-thinksystem-sr650-v3-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 – V3 Servers:
https://lenovopress.com/lp1741

To verify what specific hardware components are supported with the ThinkAgile MX650 V3, see the DCSC configurator:
https://dcsc.lenovo.com

Processors

The ThinkAgile MX650 V3 supports processors in either the 5th Gen Intel Xeon Scalable Processor family or the 4th Gen Intel Xeon Scalable Processor family.

Topics in this section:

- 5th Gen Intel Xeon Scalable processors
- 4th Gen Intel Xeon Scalable processors

5th Gen Intel Xeon Scalable processors

The ThinkAgile MX650 V3 systems support the following processors.

For details about these options, including configuration rules, see the SR650 V3 product guide: https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#processors

Table 4. Processor choices

Part number	Feature	Description	Mainstream	Maximum supported		
				MX650 V3 IS	MX650 V3 CN	MX650 V3 Premier
None	BYW3	Intel Xeon Silver 4509Y 8C 125W 2.6GHz Processor	Mainstream	2	2	2
None	BYW4	Intel Xeon Silver 4510 12C 150W 2.4GHz Processor	Mainstream	2	2	2
None	BYVS	Intel Xeon Silver 4510T 12C 115W 2.0GHz Processor	Extended	2	2	2
None	BYVP	Intel Xeon Silver 4514Y 16C 150W 2.0GHz Processor	Mainstream	2	2	2
None	BYW6	Intel Xeon Silver 4516Y+ 24C 185W 2.2GHz Processor	Mainstream	2	2	2
None	BYVW	Intel Xeon Gold 5515+ 8C 165W 3.2GHz Processor	Mainstream	2	2	2
None	BYW7	Intel Xeon Gold 5520+ 28C 205W 2.2GHz Processor	Mainstream	2	2	2
None	BYVX	Intel Xeon Gold 6526Y 16C 195W 2.8GHz Processor	Mainstream	2	2	2
None	BYWK	Intel Xeon Gold 6530 32C 270W 2.1GHz Processor	Mainstream	2	2	2
None	BYW0	Intel Xeon Gold 6534 8C 195W 3.9GHz Processor	Mainstream	2	2	2
None	BYVQ	Intel Xeon Gold 6538N 32C 205W 2.1GHz Processor	Extended	2	2	2
None	BYW8	Intel Xeon Gold 6538Y+ 32C 225W 2.2GHz Processor	Mainstream	2	2	2
None	BYVY	Intel Xeon Gold 6542Y 24C 250W 2.9GHz Processor	Mainstream	2	2	2
None	BYW1	Intel Xeon Gold 6544Y 16C 270W 3.6GHz Processor	Mainstream	2	2	2
None	BYVR	Intel Xeon Gold 6548N 32C 250W 2.8GHz Processor	Mainstream	2	2	2
None	BYVZ	Intel Xeon Gold 6548Y+ 32C 250W 2.5GHz Processor	Mainstream	2	2	2
None	BYW9	Intel Xeon Gold 6554S 36C 270W 2.2GHz Processor	Extended	2	2	2
None	BYW5	Intel Xeon Platinum 8558 48C 330W 2.1GHz Processor	Extended	2	2	2
None	BYWA	Intel Xeon Platinum 8558P 48C 350W 2.7GHz Processor	Mainstream	2	2	2
None	BYW2	Intel Xeon Platinum 8562Y+ 32C 300W 2.8GHz Processor	Mainstream	2	2	2
None	BYWF	Intel Xeon Platinum 8568Y+ 48C 350W 2.3GHz Processor	Mainstream	2	2	2
None	BYWG	Intel Xeon Platinum 8570 56C 350W 2.1GHz Processor	Extended	2	2	2
None	BYWH	Intel Xeon Platinum 8580 60C 350W 2.0GHz Processor	Extended	2	2	2
None	BYWJ	Intel Xeon Platinum 8592+ 64C 350W 1.9GHz Processor	Mainstream	2	2	2
None	BYWB	Intel Xeon Platinum 8592V 64C 330W 2.0GHz Processor	Mainstream	2	2	2
None	BYVU	Intel Xeon Gold 5512U 28C 185W 2.1GHz Processor	Extended	1*	1*	1*
None	BYWE	Intel Xeon Platinum 8558U 48C 300W 2.0GHz Processor	Extended	1*	1*	1*
None	BYWD	Intel Xeon Platinum 8571N 52C 300W 2.4GHz Processor	Extended	1*	1*	1*
None	BYWC	Intel Xeon Platinum 8581V 60C 270W 2.0GHz Processor	Extended	1*	1*	1*

* 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.

4th Gen Intel Xeon Scalable processors

The ThinkAgile MX650 V3 systems support the following processors.

For details about these options, including configuration rules, see the SR650 V3 product guide: https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#processors

Table 5. Processor choices

Part number	Feature	Description	Mainstream	Maximum supported		
				MX650 V3 IS	MX650 V3 CN	MX650 V3 Premier
None	BXHX	Intel Xeon 5423N 20C 145W 2.1GHz Processor	Extended	1*	1*	No
None	BXHY	Intel Xeon 5433N 20C 160W 2.3GHz Processor	Extended	1*	1*	No
None	BYQK	Intel Xeon 6403N 24C 185W 1.9GHz Processor	Extended	1*	1*	No
None	BYQH	Intel Xeon 6423N 28C 195W 2.0GHz Processor	Extended	1*	1*	No
None	BYQJ	Intel Xeon 6433N 32C 205W 2.0GHz Processor	Extended	1*	1*	No
None	BYQG	Intel Xeon 6443N 32C 195W 1.6GHz Processor	Extended	1*	1*	No
None	BQ64	Intel Xeon Silver 4410T 10C 150W 2.7GHz Processor	Extended	2	2	2
None	BQ67	Intel Xeon Silver 4410Y 12C 150W 2.0GHz Processor	Extended	2	2	2
None	BQ69	Intel Xeon Silver 4416+ 20C 165W 2.0GHz Processor	Extended	2	2	2
None	BQ63	Intel Xeon Gold 5415+ 8C 150W 2.9GHz Processor	Extended	2	2	2
None	BQ6L	Intel Xeon Gold 5416S 16C 150W 2.0GHz Processor	Extended	2	2	2
None	BQ6H	Intel Xeon Gold 5418N 24C 165W 1.8GHz Processor	Extended	2	2	2
None	BQ66	Intel Xeon Gold 5418Y 24C 185W 2.0GHz Processor	Extended	2	2	2
None	BQ65	Intel Xeon Gold 5420+ 28C 205W 2.0GHz Processor	Extended	2	2	2
None	BQ6C	Intel Xeon Gold 6416H 18C 165W 2.2GHz Processor	Mainstream	2	2	2
None	BQ6B	Intel Xeon Gold 6418H 24C 185W 2.1GHz Processor	Extended	2	2	2
None	BPQF	Intel Xeon Gold 6426Y 16C 185W 2.5GHz Processor	Extended	2	2	2
None	BQ6F	Intel Xeon Gold 6428N 32C 185W 1.8GHz Processor	Extended	2	2	2
None	BPPC	Intel Xeon Gold 6430 32C 270W 2.1GHz Processor	Extended	2	2	2
None	BPQC	Intel Xeon Gold 6434 8C 195W 3.7GHz Processor	Extended	2	2	2
None	BQ6E	Intel Xeon Gold 6434H 8C 195W 3.7GHz Processor	Extended	2	2	2
None	BQ6K	Intel Xeon Gold 6438M 32C 205W 2.2GHz Processor	Extended	2	2	2
None	BQ6D	Intel Xeon Gold 6438N 32C 205W 2.0GHz Processor	Extended	2	2	2
None	BQ62	Intel Xeon Gold 6438Y+ 32C 205W 2.0GHz Processor	Extended	2	2	2
None	BPQE	Intel Xeon Gold 6442Y 24C 225W 2.6GHz Processor	Extended	2	2	2
None	BPQB	Intel Xeon Gold 6444Y 16C 270W 3.6GHz Processor	Extended	2	2	2
None	BQ6A	Intel Xeon Gold 6448H 32C 250W 2.4GHz Processor	Extended	2	2	2
None	BPQD	Intel Xeon Gold 6448Y 32C 225W 2.1GHz Processor	Extended	2	2	2
None	BPPM	Intel Xeon Gold 6454S 32C 270W 2.2GHz Processor	Extended	2	2	2
None	BPPH	Intel Xeon Platinum 8444H 16C 270W 2.9GHz Processor	Extended	2	2	2

Part number	Feature	Description	Mainstream	Maximum supported		
				MX650 V3 IS	MX650 V3 CN	MX650 V3 Premier
None	BPPG	Intel Xeon Platinum 8450H 28C 250W 2.0GHz Processor	Extended	2	2	2
None	BPPB	Intel Xeon Platinum 8452Y 36C 300W 2.0GHz Processor	Extended	2	2	2
None	BPPF	Intel Xeon Platinum 8454H 32C 270W 2.1GHz Processor	Mainstream	2	2	2
None	BPPT	Intel Xeon Platinum 8458P 44C 350W 2.7GHz Processor	Extended	2	2	2
None	BPPN	Intel Xeon Platinum 8460H 40C 330W 2.2GHz Processor	Extended	2	2	2
None	BPPQ	Intel Xeon Platinum 8460Y+ 40C 300W 2.0GHz Processor	Extended	2	2	2
None	BPQA	Intel Xeon Platinum 8462Y+ 32C 300W 2.8GHz Processor	Extended	2	2	2
None	BPPU	Intel Xeon Platinum 8468 48C 350W 2.1GHz Processor	Extended	2	2	2
None	BPPE	Intel Xeon Platinum 8468H 48C 330W 2.1GHz Processor	Mainstream	2	2	2
None	BPPP	Intel Xeon Platinum 8468V 48C 330W 2.4GHz Processor	Extended	2	2	2
None	BN0N	Intel Xeon Platinum 8470 52C 350W 2.0GHz Processor	Mainstream	2	2	2
None	BPPJ	Intel Xeon Platinum 8470N 52C 300W 1.7GHz Processor	Extended	2	2	2
None	BN0M	Intel Xeon Platinum 8480+ 56C 350W 2.0GHz Processor	Extended	2	2	2
None	BPPS	Intel Xeon Platinum 8490H 60C 350W 1.9GHz Processor	Mainstream	2	2	2
None	BYQH	Intel Xeon 6423N 28C 195W 2.0GHz Processor	Extended	1*	1*	No
None	BYQJ	Intel Xeon 6433N 32C 205W 2.0GHz Processor	Extended	1*	1*	No
None	BYQG	Intel Xeon 6443N 32C 195W 1.6GHz Processor	Extended	1*	1*	No
None	BQ6J	Intel Xeon Gold 5411N 24C 165W 1.9GHz Processor	Extended	1*	1*	1*
None	BU1V	Intel Xeon Gold 5412U 24C 185W 2.1GHz Processor	Extended	1*	1*	No
None	BPPD	Intel Xeon Gold 6414U 32C 250W 2.0GHz Processor	Extended	1*	1*	1*
None	BPPK	Intel Xeon Platinum 8461V 48C 300W 2.2GHz Processor	Extended	1*	1*	1*

* 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.

Memory

5th Generation Memory options

The ThinkAgile MX650 V3 systems support the following memory options.

For details about these options, including configuration rules, see the SR650 V3 product guide:
https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#memory-options

Table 6. Memory options

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
4X77A88049	BWHW	ThinkSystem 32GB TruDDR5 5600MHz (1Rx4) RDIMM	32	32	32
4X77A88639	BX8Y	ThinkSystem 48GB TruDDR5 5600MHz (1Rx4) RDIMM	32	32	32
4X77A88052	BWHS	ThinkSystem 64GB TruDDR5 5600MHz (2Rx4) RDIMM	32	32	32
4X77A88058	BWHV	ThinkSystem 96GB TruDDR5 5600MHz (2Rx4) RDIMM	32	32	32
4X77A88087	BWJE	ThinkSystem 16GB TruDDR5 5600MHz (1Rx8) RDIMM	32	32	32
4X77A88056	BWSL	ThinkSystem 24GB TruDDR5 5600MHz (1Rx8) RDIMM	32	32	32
4X77A88051	BWJC	ThinkSystem 32GB TruDDR5 5600MHz (2Rx8) RDIMM	32	32	32
4X77A88057	BWJD	ThinkSystem 48GB TruDDR5 5600MHz (2Rx8) RDIMM	32	32	32
4X77A90991	BZ4U	ThinkSystem 32GB TruDDR5 Performance+ 5600MHz (2Rx8) RDIMM	No	32	32
4X77A90992	BZ4V	ThinkSystem 64GB TruDDR5 Performance+ 5600MHz (2Rx4) RDIMM	No	32	32
3DS RDIMMs - 5600 MHz					
4X77A88054	BWHU	ThinkSystem 128GB TruDDR5 5600MHz (4Rx4) 3DS RDIMM	32	32	32

4th Generation Memory options

The ThinkAgile MX650 V3 systems support the following memory options.

For details about these options, including configuration rules, see the SR650 V3 product guide: https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#memory-options

Table 7. Memory options

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
4X77A77029	BKTL	ThinkSystem 16GB TruDDR5 4800MHz (1Rx8) RDIMM	32	32	32
4X77A77031	BKTM	ThinkSystem 32GB TruDDR5 4800MHz (2Rx8) RDIMM	32	32	32
4X77A77030	BNF6	ThinkSystem 32GB TruDDR5 4800MHz (1Rx4) 10x4 RDIMM	32	32	32
4X77A77032	BNF9	ThinkSystem 64GB TruDDR5 4800MHz (2Rx4) 10x4 RDIMM	32	32	32
3DS RDIMMs					
4X77A77034	BNFC	ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v2	32	32	32
4X77A77035	BNF8	ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v2	32	32	32

Internal storage

Internal storage configurations of the ThinkAgile MX650 V3 are as follows. All drives are hot-swap and are accessible from the front or rear of the system:

In this section:

- ThinkAgile MX650 V3 IS and CN Hybrid
- ThinkAgile MX650 V3 PR, IS and CN All Flash
- Backplanes
- Boot drive enablement

ThinkAgile MX650 V3 IS and CN Hybrid

- Front drive bays:
  - 12x 3.5-inch SAS/SATA
- Rear drive bays:
  - 4x 2.5-inch (optional)

Configuration rules are as follows:

- All Hybrid storage configurations are two-tier, cache tier and capacity tier
- Drive type choices are as follows:
  - HDDs for capacity
  - SAS/SATA or NVMe SSDs for cache
- For cache drives, a minimum of 2 and maximum of 6 drives is required
- For capacity drives, a minimum of 4 drives is required
- For configurations with 2.5-inch rear drives, the rear drives are for cache and the front drives are for capacity
- The total Cache storage must be a minimum of 10% of the total Capacity storage

For OS boot functionality, the server supports either:

- One or two M.2 SATA drives, installed in an M.2 adapter internal to the server.
- One or two 7mm hot-swap SATA or NVMe drives, accessible from the rear of the server.

ThinkAgile MX650 V3 PR, IS and CN All Flash

- Front drive bays:
  - 16x 2.5-inch SAS/SATA + 8x 2.5 inch AnyBay
- Rear drive bays:
  - 4x 2.5-inch (optional)

Configuration rules are as follows:

- All-flash configurations can be single-tier or two-tier storage:
- To select a single-tier configuration in DCSC, select the drive you wish to use (from either the capacity or cache lists) and ensure that all other drive selections are set to None
- To select a two-tier configuration in DCSC, select a quantity of cache drives and a quantity of capacity drives
- Drive choices for a single-tier configuration are as follows:
  - Drives can be either SAS SSDs, SATA SDDs or NVMe SSDs
  - For All-NVMe storage cache or capacity configuration, all the drives must be the same type in a node.
  - All drives must be the same feature code
  - A minimum of 4 drives is required
- Drive choices for a two-tier configuration are as follows:
  - The following combinations are supported:
    - SAS SSD for cache and SAS/SATA SSD for capacity
    - NVMe SSD for cache and SAS/SATA SSD for capacity
  - All cache drives must be the same feature code and all capacity drives must be the same feature code
  - A minimum of 2 cache drives and a minimum of 4 capacity drives is required
  - The total cache storage must be a minimum of 10% of the total capacity storage

For OS boot functionality, the server supports either:

- One or two M.2 SATA drives, installed in an M.2 adapter internal to the server.
- One or two 7mm hot-swap SATA or NVMe drives, accessible from the rear of the server.

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 SR650 V3 product guide:
https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#internal-storage

Table 8. Drive backplanes

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
Front 3.5-inch drive backplanes					
None	B8LT	ThinkSystem 2U 12x3.5" SAS/SATA Backplane	No	1	1
Front 2.5-inch drive backplanes					
None	B8LU	ThinkSystem 2U 8x2.5" SAS/SATA Backplane	3	3	3
None	BH8D	ThinkSystem 2U/4U 8x2.5" NVMe Backplane	3	3	3
None	BH8B	ThinkSystem 2U/4U 8x2.5" AnyBay Backplane	No	3	3
Rear 3.5-inch drive backplanes					
None	B8L3	ThinkSystem 1U/2U 4x3.5" SAS/SATA Backplane	No	1	1
None	BAG7	ThinkSystem 2U 2x3.5" SAS/SATA Rear Backplane	No	1	1

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
Rear 2.5-inch drive backplanes					
None	B8LV	ThinkSystem 2U 4x2.5" SAS/SATA Backplane	1	1	1
None	BSE3	ThinkSystem 4x2.5" AnyBay Gen5 Backplane	No	1	1
Backplane - 7mm drives					
None	BU0N	ThinkSystem 7mm SATA/NVMe 2-Bay Rear Enablement Kit v2	1	1	1
None	BS9U	7mm NVMe Array 1 RAID 1	1	1	1

Boot drive enablement

For OS boot functions, the systems also support one or two 7mm hot-swap drives at the rear of the server, or one or two M.2 drives installed on an adapter internal to the server. The following table lists the supported controllers/enablement kits for M.2 and 7mm boot drives.

For details about these options, including configuration rules, see the SR650 V3 product guide: https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#internal-storage

Configuration Note: For ThinkSystem M.2 SATA/x4 NVMe 2-Bay Enablement Kit (4Y37A79663):

- For SATA RAID use ThinkSystem M.2 SATA/x4 NVMe 2-Bay Enablement Kit and ThinkSystem RAID 5350-8i for M.2 SATA Boot Enablement

Table 9. Boot drive enablement

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
M.2 enablement kits					
4Y37A79663	BM8X	ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter	1	1	1
Controllers for RAID support of M.2 Drives					
4Y37A72482	BVL1	ThinkSystem RAID 5350-8i for M.2 SATA Boot Enablement	1	1	1
4Y37A90063	BYFF	ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter	1	1	1
Controllers for RAID support of 7mm drives					
4Y37A78834	BVL4	ThinkSystem Raid 540-8i for 7MM NVMe boot Enablement	1	1	1

Controllers for internal storage

The ThinkAgile MX650 V3 support the following internal storage controllers.

For details about these options, see the SR650 V3 product guide:
https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#controllers-for-internal-storage

Table 10. Controllers for internal storage

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
SAS/SATA HBA - PCIe 4.0					
4Y37A78602	BM50	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb HBA	2	2	2
4Y37A78601	BM51	ThinkSystem 440-8i SAS/SATA PCIe Gen4 12Gb HBA	4	4	4
4Y37A09725	B8P1	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb Internal HBA	1	1	1
SAS Expander					
4Y37A09736	B8P6	ThinkSystem 48 port 12Gb Internal Expander	1	1	1
NVMe adapters					
4C57A65446	B98C	ThinkSystem 4-Port PCIe Gen4 NVMe Retimer Adapter	4	4	4

Internal drive options

Microsoft S2D/Hyper-V configurations: Vendor Agnostic (VA) drives are based on drives from multiple vendors, and not all vendor variants are Microsoft S2D/Hyper-V certified. Additionally, Microsoft requires a single drive vendor per host and cluster to ensure optimal performance; a requirement that VA drives may not consistently meet. To ensure certification compliance, hardware uniformity, and alignment with Microsoft best practices, use ThinkAgile MX for all S2D/Hyper-V configurations, instead of general purpose ThinkSystem servers.

This section lists the supported drives:

- Boot drives
- Internal drives for ThinkAgile MX650 V3 Premier Solution
- Internal drives for ThinkAgile MX650 V3 Integrated System
- Internal drives for ThinkAgile MX650 V3 Certified Node

Boot drives

The ThinkAgile MX650 V3 systems support the following drive for boot functions.

Table 11. Boot drives

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
4XB7B07588	CABU	ThinkSystem M.2 VA 480GB Read Intensive SATA 6Gb NHS SSD	2	2	2
4XB7B07589	CACA	ThinkSystem M.2 VA 960GB Read Intensive SATA 6Gb NHS SSD	2	2	2
M.2 NVME drives					
4XB7B09650	CBSZ	ThinkSystem M.2 VA 480GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2	2	2
4XB7B09651	CBT0	ThinkSystem M.2 VA 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2	2	2
4XB7A90102	BXMH	ThinkSystem M.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2	2	2
7mm NVME drives					
4XB7A90096	BXMN	ThinkSystem 7mm U.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	2	No	No
4XB7A90097	BXMM	ThinkSystem 7mm U.2 PM9A3 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	2	No	No
4XB7A90098	BXML	ThinkSystem 7mm U.2 PM9A3 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	2	No	No

Internal drives for ThinkAgile MX650 V3 Premier Solution

The following table lists the drives support in the ThinkAgile MX650 V3 Premier Solution. 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 12. Drives supported in the ThinkAgile MX650 V3 Premier Solution

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
2.5-inch hot-swap 24 Gb SAS SSDs						
4XB7A80318	BNWC	ThinkSystem 2.5" PM1653 960GB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80319	BNWE	ThinkSystem 2.5" PM1653 1.92TB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80320	BNWF	ThinkSystem 2.5" PM1653 3.84TB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80321	BP3E	ThinkSystem 2.5" PM1653 7.68TB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80322	BP3J	ThinkSystem 2.5" PM1653 15.36TB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80323	BP3D	ThinkSystem 2.5" PM1653 30.72TB Read Intensive SAS 24Gb HS SSD	No	28	No	No
4XB7A80340	BNW8	ThinkSystem 2.5" PM1655 800GB Mixed Use SAS 24Gb HS SSD	28	28	28	No
4XB7A80341	BNW9	ThinkSystem 2.5" PM1655 1.6TB Mixed Use SAS 24Gb HS SSD	28	28	28	No
4XB7A80342	BNW6	ThinkSystem 2.5" PM1655 3.2TB Mixed Use SAS 24Gb HS SSD	28	28	28	No
4XB7A80343	BP3K	ThinkSystem 2.5" PM1655 6.4TB Mixed Use SAS 24Gb HS SSD	28	28	28	No
2.5-inch hot-swap PCIe 5.0 NVMe SSDs						
4XB7A93480	C0BB	ThinkSystem 2.5" U.2 CD8P 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93481	C0BA	ThinkSystem 2.5" U.2 CD8P 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93482	C0B9	ThinkSystem 2.5" U.2 CD8P 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93483	C0B8	ThinkSystem 2.5" U.2 CD8P 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93484	C0B7	ThinkSystem 2.5" U.2 CD8P 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93066	C0GK	ThinkSystem 2.5" U.2 PM9D3a 960GB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93067	C0GL	ThinkSystem 2.5" U.2 PM9D3a 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93068	C0GN	ThinkSystem 2.5" U.2 PM9D3a 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93069	C0GP	ThinkSystem 2.5" U.2 PM9D3a 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A93095	C1WL	ThinkSystem 2.5" U.2 PM9D3a 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7B04552	CA3Q	ThinkSystem 2.5" PM9D3a 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93888	C0ZM	ThinkSystem 2.5" U.2 CD8P 1.6TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93889	C0ZL	ThinkSystem 2.5" U.2 CD8P 3.2TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93890	C0ZK	ThinkSystem 2.5" U.2 CD8P 6.4TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93891	C0ZJ	ThinkSystem 2.5" U.2 CD8P 12.8TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
2.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7A90099	BXMB	ThinkSystem 2.5" U.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90100	BXMA	ThinkSystem 2.5" U.2 PM9A3 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90101	BXM9	ThinkSystem 2.5" U.2 PM9A3 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A91776	C0G9	ThinkSystem 2.5" U.2 PM9A3 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7B01867	C6MA	ThinkSystem 2.5" U.2 Solidigm P5520 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01868	C6MB	ThinkSystem 2.5" U.2 Solidigm P5520 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01869	C6MC	ThinkSystem 2.5" U.2 Solidigm P5520 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A13631	BNEQ	ThinkSystem 2.5" U.2 P5520 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95054	C2BG	ThinkSystem 2.5" U.3 7500 MAX 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95058	C2BX	ThinkSystem 2.5" U.3 7500 MAX 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No

Internal drives for ThinkAgile MX650 V3 Integrated System

The following table lists the drives support in the ThinkAgile MX650 V3 Integrated System. 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 13. Drives supported in the ThinkAgile MX650 V3 Integrated System

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
2.5-inch hot-swap 24 Gb SAS SSDs						
4XB7A80318	BNWC	ThinkSystem 2.5" PM1653 960GB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80319	BNWE	ThinkSystem 2.5" PM1653 1.92TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80320	BNWF	ThinkSystem 2.5" PM1653 3.84TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80321	BP3E	ThinkSystem 2.5" PM1653 7.68TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80322	BP3J	ThinkSystem 2.5" PM1653 15.36TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80323	BP3D	ThinkSystem 2.5" PM1653 30.72TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80340	BNW8	ThinkSystem 2.5" PM1655 800GB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80341	BNW9	ThinkSystem 2.5" PM1655 1.6TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80342	BNW6	ThinkSystem 2.5" PM1655 3.2TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80343	BP3K	ThinkSystem 2.5" PM1655 6.4TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
2.5-inch hot-swap 6 Gb SAS SSDs						
4XB7A82289	BQ21	ThinkSystem 2.5" 5400 MAX 480GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82290	BQ24	ThinkSystem 2.5" 5400 MAX 960GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82291	BQ22	ThinkSystem 2.5" 5400 MAX 1.92TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82292	BQ23	ThinkSystem 2.5" 5400 MAX 3.84TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17125	BA7Q	ThinkSystem 2.5" S4620 480GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17126	BA4T	ThinkSystem 2.5" S4620 960GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17127	BA4U	ThinkSystem 2.5" S4620 1.92TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17128	BK7L	ThinkSystem 2.5" S4620 3.84TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82259	BQ1P	ThinkSystem 2.5" 5400 PRO 480GB Read Intensive SATA 6Gb HS SSD	No	40	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A82260	BQ1R	ThinkSystem 2.5" 5400 PRO 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82261	BQ1X	ThinkSystem 2.5" 5400 PRO 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82262	BQ1S	ThinkSystem 2.5" 5400 PRO 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82263	BQ1T	ThinkSystem 2.5" 5400 PRO 7.68TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87525	BWKM	ThinkSystem 2.5" PM893a 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87526	BWKL	ThinkSystem 2.5" PM893a 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87527	BWKK	ThinkSystem 2.5" PM893a 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17101	BA7G	ThinkSystem 2.5" S4520 480GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17102	BA7H	ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17103	BA7J	ThinkSystem 2.5" S4520 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17104	BK77	ThinkSystem 2.5" S4520 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17105	BK78	ThinkSystem 2.5" S4520 7.68TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
2.5-inch hot-swap PCIe 5.0 NVMe SSDs						
4XB7A93480	C0BB	ThinkSystem 2.5" U.2 CD8P 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93481	C0BA	ThinkSystem 2.5" U.2 CD8P 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93482	C0B9	ThinkSystem 2.5" U.2 CD8P 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93483	C0B8	ThinkSystem 2.5" U.2 CD8P 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93484	C0B7	ThinkSystem 2.5" U.2 CD8P 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93066	C0GK	ThinkSystem 2.5" U.2 PM9D3a 960GB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93067	C0GL	ThinkSystem 2.5" U.2 PM9D3a 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93068	C0GN	ThinkSystem 2.5" U.2 PM9D3a 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93069	C0GP	ThinkSystem 2.5" U.2 PM9D3a 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93095	C1WL	ThinkSystem 2.5" U.2 PM9D3a 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7B04552	CA3Q	ThinkSystem 2.5" PM9D3a 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A93888	C0ZM	ThinkSystem 2.5" U.2 CD8P 1.6TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93889	C0ZL	ThinkSystem 2.5" U.2 CD8P 3.2TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93890	C0ZK	ThinkSystem 2.5" U.2 CD8P 6.4TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93891	C0ZJ	ThinkSystem 2.5" U.2 CD8P 12.8TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
2.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7A90099	BXMB	ThinkSystem 2.5" U.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90100	BXMA	ThinkSystem 2.5" U.2 PM9A3 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90101	BXM9	ThinkSystem 2.5" U.2 PM9A3 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A91776	C0G9	ThinkSystem 2.5" U.2 PM9A3 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7B01867	C6MA	ThinkSystem 2.5" U.2 Solidigm P5520 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01868	C6MB	ThinkSystem 2.5" U.2 Solidigm P5520 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01869	C6MC	ThinkSystem 2.5" U.2 Solidigm P5520 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A13631	BNEQ	ThinkSystem 2.5" U.2 P5520 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7B01879	C6M2	ThinkSystem 2.5" U.2 Solidigm P5620 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01880	C6M3	ThinkSystem 2.5" U.2 Solidigm P5620 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01881	C6M4	ThinkSystem 2.5" U.2 Solidigm P5620 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A17136	BA4V	ThinkSystem 2.5" U.2 P5620 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95054	C2BG	ThinkSystem 2.5" U.3 7500 MAX 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95058	C2BX	ThinkSystem 2.5" U.3 7500 MAX 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95049	C2BY	ThinkSystem 2.5" U.3 7500 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
3.5-inch hot-swap 6 Gb SAS HDDs						
7XB7A00051	AUU8	ThinkSystem 3.5" 4TB 7.2K SATA 6Gb Hot Swap 512n HDD	No	No	No	20
7XB7A00052	AUUA	ThinkSystem 3.5" 6TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00053	AUU9	ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00054	AUUB	ThinkSystem 3.5" 10TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00068	B118	ThinkSystem 3.5" 12TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13907	B497	ThinkSystem 3.5" 14TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13914	B7F0	ThinkSystem 3.5" 16TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
3.5-inch hot-swap 12 Gb SAS HDDs						
7XB7A00043	AUU6	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512n HDD	No	No	No	20
7XB7A00044	AUU7	ThinkSystem 3.5" 6TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00045	B0YR	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00046	AUUG	ThinkSystem 3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00067	B117	ThinkSystem 3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13906	B496	ThinkSystem 3.5" 14TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13911	B7EZ	ThinkSystem 3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
3.5-inch hot-swap 24 Gb SAS SSDs						
4XB7A80344	BNW7	ThinkSystem 3.5" PM1655 800GB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80345	BNWA	ThinkSystem 3.5" PM1655 1.6TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80346	BNWB	ThinkSystem 3.5" PM1655 3.2TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80347	BP3G	ThinkSystem 3.5" PM1655 6.4TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
3.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7B01883	C6M6	ThinkSystem 3.5" U.2 Solidigm P5620 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7B01884	C6M7	ThinkSystem 3.5" U.2 Solidigm P5620 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No
4XB7B01885	C6M8	ThinkSystem 3.5" U.2 Solidigm P5620 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No
4XB7A17148	BNEP	ThinkSystem 3.5" U.2 P5620 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	12	No

Internal drives for ThinkAgile MX650 V3 Certified Node

The following table lists the drives support in the ThinkAgile MX650 V3 Certified Node. 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 14. Drives supported in the ThinkAgile MX650 V3 Certified Node

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
2.5-inch hot-swap 24 Gb SAS SSDs						
4XB7A80318	BNWC	ThinkSystem 2.5" PM1653 960GB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80319	BNWE	ThinkSystem 2.5" PM1653 1.92TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80320	BNWF	ThinkSystem 2.5" PM1653 3.84TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80321	BP3E	ThinkSystem 2.5" PM1653 7.68TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80322	BP3J	ThinkSystem 2.5" PM1653 15.36TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80323	BP3D	ThinkSystem 2.5" PM1653 30.72TB Read Intensive SAS 24Gb HS SSD	No	40	No	No
4XB7A80340	BNW8	ThinkSystem 2.5" PM1655 800GB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80341	BNW9	ThinkSystem 2.5" PM1655 1.6TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80342	BNW6	ThinkSystem 2.5" PM1655 3.2TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
4XB7A80343	BP3K	ThinkSystem 2.5" PM1655 6.4TB Mixed Use SAS 24Gb HS SSD	40	40	40	No
2.5-inch hot-swap 6 Gb SAS SSDs						
4XB7A82289	BQ21	ThinkSystem 2.5" 5400 MAX 480GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82290	BQ24	ThinkSystem 2.5" 5400 MAX 960GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82291	BQ22	ThinkSystem 2.5" 5400 MAX 1.92TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82292	BQ23	ThinkSystem 2.5" 5400 MAX 3.84TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17125	BA7Q	ThinkSystem 2.5" S4620 480GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17126	BA4T	ThinkSystem 2.5" S4620 960GB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17127	BA4U	ThinkSystem 2.5" S4620 1.92TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A17128	BK7L	ThinkSystem 2.5" S4620 3.84TB Mixed Use SATA 6Gb HS SSD	No	40	No	No
4XB7A82259	BQ1P	ThinkSystem 2.5" 5400 PRO 480GB Read Intensive SATA 6Gb HS SSD	No	40	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A82260	BQ1R	ThinkSystem 2.5" 5400 PRO 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82261	BQ1X	ThinkSystem 2.5" 5400 PRO 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82262	BQ1S	ThinkSystem 2.5" 5400 PRO 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A82263	BQ1T	ThinkSystem 2.5" 5400 PRO 7.68TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87525	BWKM	ThinkSystem 2.5" PM893a 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87526	BWKL	ThinkSystem 2.5" PM893a 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A87527	BWKK	ThinkSystem 2.5" PM893a 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17101	BA7G	ThinkSystem 2.5" S4520 480GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17102	BA7H	ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17103	BA7J	ThinkSystem 2.5" S4520 1.92TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17104	BK77	ThinkSystem 2.5" S4520 3.84TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
4XB7A17105	BK78	ThinkSystem 2.5" S4520 7.68TB Read Intensive SATA 6Gb HS SSD	No	40	No	No
2.5-inch hot-swap PCIe 5.0 NVMe SSDs						
4XB7A93480	C0BB	ThinkSystem 2.5" U.2 CD8P 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93481	C0BA	ThinkSystem 2.5" U.2 CD8P 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93482	C0B9	ThinkSystem 2.5" U.2 CD8P 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93483	C0B8	ThinkSystem 2.5" U.2 CD8P 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93484	C0B7	ThinkSystem 2.5" U.2 CD8P 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93066	C0GK	ThinkSystem 2.5" U.2 PM9D3a 960GB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93067	C0GL	ThinkSystem 2.5" U.2 PM9D3a 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93068	C0GN	ThinkSystem 2.5" U.2 PM9D3a 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93069	C0GP	ThinkSystem 2.5" U.2 PM9D3a 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7A93095	C1WL	ThinkSystem 2.5" U.2 PM9D3a 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No
4XB7B04552	CA3Q	ThinkSystem 2.5" PM9D3a 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	No	24	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A93888	C0ZM	ThinkSystem 2.5" U.2 CD8P 1.6TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93889	C0ZL	ThinkSystem 2.5" U.2 CD8P 3.2TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93890	C0ZK	ThinkSystem 2.5" U.2 CD8P 6.4TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
4XB7A93891	C0ZJ	ThinkSystem 2.5" U.2 CD8P 12.8TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	24	24	24	No
2.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7A90099	BXMB	ThinkSystem 2.5" U.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90100	BXMA	ThinkSystem 2.5" U.2 PM9A3 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A90101	BXM9	ThinkSystem 2.5" U.2 PM9A3 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A91776	C0G9	ThinkSystem 2.5" U.2 PM9A3 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7B01867	C6MA	ThinkSystem 2.5" U.2 Solidigm P5520 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01868	C6MB	ThinkSystem 2.5" U.2 Solidigm P5520 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01869	C6MC	ThinkSystem 2.5" U.2 Solidigm P5520 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A13631	BNEQ	ThinkSystem 2.5" U.2 P5520 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7B01879	C6M2	ThinkSystem 2.5" U.2 Solidigm P5620 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01880	C6M3	ThinkSystem 2.5" U.2 Solidigm P5620 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7B01881	C6M4	ThinkSystem 2.5" U.2 Solidigm P5620 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A17136	BA4V	ThinkSystem 2.5" U.2 P5620 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95054	C2BG	ThinkSystem 2.5" U.3 7500 MAX 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95058	C2BX	ThinkSystem 2.5" U.3 7500 MAX 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	24	24	24	No
4XB7A95049	C2BY	ThinkSystem 2.5" U.3 7500 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	No	24	No	No
3.5-inch hot-swap 6 Gb SAS HDDs						
7XB7A00051	AUU8	ThinkSystem 3.5" 4TB 7.2K SATA 6Gb Hot Swap 512n HDD	No	No	No	20
7XB7A00052	AUUA	ThinkSystem 3.5" 6TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00053	AUU9	ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00054	AUUB	ThinkSystem 3.5" 10TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00068	B118	ThinkSystem 3.5" 12TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13907	B497	ThinkSystem 3.5" 14TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13914	B7F0	ThinkSystem 3.5" 16TB 7.2K SATA 6Gb Hot Swap 512e HDD	No	No	No	20
3.5-inch hot-swap 12 Gb SAS HDDs						
7XB7A00043	AUU6	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512n HDD	No	No	No	20
7XB7A00044	AUU7	ThinkSystem 3.5" 6TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00045	B0YR	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00046	AUUG	ThinkSystem 3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
7XB7A00067	B117	ThinkSystem 3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13906	B496	ThinkSystem 3.5" 14TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
4XB7A13911	B7EZ	ThinkSystem 3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD	No	No	No	20
3.5-inch hot-swap 24 Gb SAS SSDs						
4XB7A80344	BNW7	ThinkSystem 3.5" PM1655 800GB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80345	BNWA	ThinkSystem 3.5" PM1655 1.6TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80346	BNWB	ThinkSystem 3.5" PM1655 3.2TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
4XB7A80347	BP3G	ThinkSystem 3.5" PM1655 6.4TB Mixed Use SAS 24Gb HS SSD	No	No	20	No
3.5-inch hot-swap PCIe 4.0 NVMe SSDs						
4XB7B01883	C6M6	ThinkSystem 3.5" U.2 Solidigm P5620 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No

Part number	Feature	Description	All Flash		Hybrid	
			Cache	Capacity	Cache	Capacity
4XB7B01884	C6M7	ThinkSystem 3.5" U.2 Solidigm P5620 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No
4XB7B01885	C6M8	ThinkSystem 3.5" U.2 Solidigm P5620 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	6	No
4XB7A17148	BNEP	ThinkSystem 3.5" U.2 P5620 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	No	No	12	No

Network adapters

The ThinkAgileMX650 V3 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 SR650 V3 product guide:
https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#i-o-expansion
https://lenovopress.com/lp1601-thinksystem-sr650-v3-server#network-adapters

Table 15. OCP network adapters

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
10GBASE-T Ethernet					
4XC7A08236	B5ST	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	No	1	1
4XC7A08240	B5T4	ThinkSystem Broadcom 57454 10GBASE-T 4-port OCP Ethernet Adapter	No	1	1
25 Gb Ethernet					
4XC7A08294	BCD4	ThinkSystem Intel E810-DA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter	1	1	1
4XC7A80269	BP8L	ThinkSystem Intel E810-DA4 10/25GbE SFP28 4-Port OCP Ethernet Adapter	1	1	1
4XC7A62582	BE4T	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port OCP Ethernet Adapter	1	1	1

Table 16. PCIe network adapters

Part number	Feature	Description	Maximum supported		
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN
10GBASE-T Ethernet					
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	No	8	8
25 Gb Ethernet					
4XC7A08295	BCD6	ThinkSystem Intel E810-DA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	8	8	8
4XC7A80267	BP8M	ThinkSystem Intel E810-DA4 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	6	6	6
4XC7A62580	BE4U	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	8	8	8
100 Gb Ethernet					
4XC7A08248	B8PP	ThinkSystem Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter	6	6	6

GPU adapters

The ThinkAgile MX650 V3 systems support the following GPU options.

For details about these options, including configuration rules, see the SR650 V3 product guide: https://lenovopress.com/lp1601-thinksystem-sr650-v3-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.
- **GPU Controlled models** are used to order any of the controlled GPUs and accelerators. Controlled models are not available in affected markets. If you start from a controlled model, your configuration must include a controlled GPUs.

Note:

- For all models listed in the GPU **Controlled models** column, one of the controlled GPUs *must* be selected in the DCSC configurator. DCSC will display an error if you configuration does not include one of the controlled GPUs.
- It is highly recommended to engage a Lenovo representative early in a project that includes the ThinkAgile MX Series Integrated Systems and Certified Nodes

Table 17. GPU adapters

Part number	Feature	Description	Maximum supported					
			MX650 V3 Premier	MX650 V3 IS	MX650 V3 CN	MX650 V3 IS w/Cntl GPU	MX650 V3 CN w/Cntl GPU	MX650 V3 Premier w/Cntl GPU
Double-wide GPUs								
4X67A76581	BQZR	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU w/o CEC	No	No	No	3	3	No
4X67A84823	BT87	ThinkSystem NVIDIA L40 48GB PCIe Gen4 Passive GPU	No	No	No	3	3	3
4X67A90669	BYFH	ThinkSystem NVIDIA L40S 48GB PCIe Gen4 Passive GPU	No	No	No	3	3	3
CTO Only	BQZU	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU w/o CEC	3	3	3	No	No	No
Single-wide GPUs								
4X67A81547	BQZT	ThinkSystem NVIDIA A2 16GB PCIe Gen4 Passive GPU w/o CEC	8	8	8	No	No	No
4X67A84824	BS2C	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	No	No	No	8	8	8

Software

The ThinkAgile MX Premier Solutions include the preloaded MS Azure Local MX Premier OS only, with the option to purchase a Windows Server 2022 Datacenter license if unlimited guest OS VMs are desired.

The ThinkAgile MX Integrated Systems include the preloaded Azure Local operating system only and requires activation via a CSP such as Lenovo Cloud Marketplace, with the option to purchase a Windows Server 2022 Datacenter license if unlimited guest OS VMs are desired.

The ThinkAgile MX Certified Nodes can optionally have Windows Server 2022 Datacenter, or 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 with the Certified Node for the installation at the customer site.

The following table lists the Azure Local software option that are available for selection from Lenovo for the ThinkAgile MX650 V3 Premier Solution

Table 18. Azure Local software selection options

Feature code	Description
MS Azure Local MX Premier (Factory installed)	
	MS Azure Local MX Premier - English (factory installed)
Windows Server 2022 Datacenter (Not preinstalled)	
BPA3	Windows Server Datacenter 2022 for Microsoft Azure Local - Multilanguage (not pre-installed)
BPA4	Windows Server Datacenter 2022 for Microsoft Azure Local - Simplified Chinese (not pre-installed)
BPA5	Windows Server Datacenter 2022 for Microsoft Azure Local - Traditional Chinese (not pre-installed)
BPA6	Windows Server Datacenter 2022 for Microsoft Azure Local - Japanese (not pre-installed)

The following table lists the Windows Server Datacenter software options that are available for selection from Lenovo for Certified Nodes.

Table 19. Windows Server Datacenter software selection options (Certified Nodes only)

Feature code	Description
Windows Server 2022 Datacenter (Factory installed)	
BPA7	Windows Server Datacenter 2022 for Microsoft Azure Local - English (factory installed)
Windows Server 2022 Datacenter (Not preinstalled)	
BPA3	Windows Server Datacenter 2022 for Microsoft Azure Local - Multilanguage (not pre-installed)
BPA4	Windows Server Datacenter 2022 for Microsoft Azure Local - Simplified Chinese (not pre-installed)
BPA5	Windows Server Datacenter 2022 for Microsoft Azure Local - Traditional Chinese (not pre-installed)
BPA6	Windows Server Datacenter 2022 for Microsoft Azure Local - Japanese (not pre-installed)
Windows Server 2019 Datacenter (Factory installed)	
B6P2	Windows Server Datacenter 2019 for Microsoft Azure Local - English (factory installed)
Windows Server 2019 Datacenter (Not preinstalled)	
B6NY	Windows Server Datacenter 2019 for Microsoft Azure Local - Multilanguage (not pre-installed)
B6P0	Windows Server Datacenter 2019 for Microsoft Azure Local - Simplified Chinese (not pre-installed)
B6P1	Windows Server Datacenter 2019 for Microsoft Azure Local - Traditional Chinese (not pre-installed)
B6NZ	Windows Server Datacenter 2019 for Microsoft Azure Local - Japanese (not pre-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 MX650 V3 Premier Solution 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 MX650 V3 Premier 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 MX650 V3 Integrated Systems 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 Integrated System support plan, available from https://support.lenovo.com/us/en/solutions/HT511522.

The ThinkAgile MX650 V3 Certified Nodes can be configured with a three-, four-, or five-year hardware warranty and various levels of service 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 Certified Node support plan, available from https://support.lenovo.com/us/en/solutions/ht507709-lenovo-support-plan-thinkagile-mx-certified-nodes

The ThinkAgile MX650 V3 Premier Solution, Integrated Systems and Certified Nodes have a 3-year base warranty:

- 7D6S- 2U Integrated System - 3 year warranty
- 7D6S- 2U Certified Node - 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 Support Plus 24x7 4-Hour Response** – Best choice for systems where maximum uptime is critical.

For more information, consult our Lenovo Operational Support Services for Data Centers Services Brochure.

Note: Some warranty upgrades may not be available in all markets or regions. For more information, go to https://lenovolocator.com/. For information about Lenovo warranty upgrade offerings that are available in your region, contact your local Lenovo sales representative or business partner.

Services

Lenovo Infrastructure Services empower you at every stage of your IT lifecycle. From expert advisory and strategic planning to seamless deployment and ongoing support, we ensure your infrastructure is built for success. Our comprehensive services accelerate time to value, minimize downtime, and free your IT staff to focus on driving innovation and business growth.

Note: Some service options may not be available in all markets or regions. For more information, go to https://lenovolocator.com/. For information about Lenovo service upgrade offerings that are available in your region, contact your local Lenovo sales representative or business partner.

In this section:

- Lenovo Advisory Services
- Lenovo Implementation Services
- Infrastructure Deployment Services
- Lenovo Support Services
- Lenovo Managed Services
- Lenovo Sustainability Services

Lenovo Advisory Services

Lenovo Advisory Services simplify the planning process, enabling customers to build future-proofed strategies in as little as six weeks. Consultants provide guidance on projects including VM migration, storage, backup and recovery, and cost management to accelerate time to value, improve cost efficiency, and build a flexibly scalable foundation.

- **Assessment Services**

  An Assessment helps solve your IT challenges through an onsite, multi-day session with a Lenovo technology expert. We perform a tools-based assessment which provides a comprehensive and thorough review of a company's environment and technology systems. In addition to the technology-based functional requirements, the consultant also discusses and records the non-functional business requirements, challenges, and constraints. Assessments help organizations like yours, no matter how large or small, get a better return on your IT investment and overcome challenges in the ever-changing technology landscape.

Lenovo Implementation Services

Optimize your IT operations by shifting labor-intensive functions to Lenovo's skilled technicians for seamless on-site or remote deployment, configuration, and migration. Enjoy peace of mind, faster time to value, and comprehensive knowledge sharing with your IT staff, backed by our best-practice methodology.

Infrastructure Configuration Services

- **Factory Integrated Services**

  A suite of value-added offerings provided during the manufacturing phase of a server or storage system that reduces time to value. These services aim at improving your hardware deployment experience and enhance the quality of a standard configuration before it arrives at your facility.

Infrastructure Deployment Services

Lenovo Infrastructure Deployment Services help you move from hardware delivery toward production with the planning, installation, configuration, integration, validation, documentation, and operational handoff support your project requires. Choose from clearly defined Premier Deploy for Infrastructure options, Specialized Deployment Services, or Hardware Installation Services based on your platform, project

complexity, internal IT capabilities, and desired level of assurance.

For more information, consult our Lenovo Infrastructure Deployment Services Catalog.

- **Premier Deploy for Infrastructure**

  Clearly defined deployment options for eligible ThinkSystem servers, ThinkSystem storage arrays, and ThinkAgile solutions.

  Table 20. Premier Deploy for Infrastructure

	Standard Deploy	Premier Deploy	Premier Deploy Plus
Choose when:	You need straightforward physical hardware installation and customer acceptance.	You need operating system installation and/or system configuration, integration and validation.	You need extended post-deployment assurance and visibility after implementation.
You gain:	An installed, accepted, and documented hardware foundation.	A validated, integrated environment ready to move into production.	Added assurance as your team transitions into ongoing operations.

  For more information, see the Premier Deploy for Infrastructure 1-pager.

- **Specialized Deployment Services**

  Focused deployment expertise for specific technologies or project requirements when Premier Deploy for Infrastructure is not supported or is not the right fit for your project. Services can support ThinkSystem storage arrays, ThinkAgile solutions, HPC, liquid cooling, and private cloud environments through activities such as readiness planning, configuration, integration, validation, documentation, knowledge transfer, and operational handoff, as applicable. Availability and scope vary by platform, project requirements, geography, and service scope.

- **Hardware Installation Services**

  Expert physical installation for eligible hardware outside the Premier Deploy for Infrastructure scope, or for projects that require installation only.

- **Hardware Installation Plus**

  Extends Hardware Installation Services with:

  - RAID configuration
  - Supported operating system installation
  - Driver-level verification

Lenovo Support Services

In addition to response time options for hardware parts, repairs, and labor, Lenovo offers a wide array of additional support services to ensure your business is positioned for success and longevity. Our goal is to reduce your capital outlays, mitigate your IT risks, and accelerate your time to productivity.

- **Premier Support for Infrastructure**

  Helps you build business resilience with expert-led support, responsive issue resolution, and coordinated troubleshooting across supported Lenovo server and storage environments. Direct access to Lenovo expertise and accountable end-to-end case ownership help reduce disruption and simplify ongoing infrastructure operations.

- **Premier Support Plus for Infrastructure**

  Gain all the benefits of Premier Support for Infrastructure, with proactive and predictive support capabilities, designated account oversight, preventative maintenance guidance, and Keep Your Drive to help identify potential issues earlier, plan service more effectively, and maintain control of sensitive data.

- **Committed Service Repair (CSR)**

  Our commitment to ensuring the fastest, most seamless resolution times for mission-critical systems that require immediate attention to ensure minimal downtime and risk for your business. This service is only available for machines under the Premier 4-Hour Response SLA.

- **Multivendor Support Services (MVS)**

  Your single point of accountability for resolution support across a vast range of leading Server, Storage, and Networking OEMs, allowing you to manage all your supported infrastructure devices seamlessly from a single source.

- **Keep Your Drive (KYD)**

  Protect sensitive data and maintain compliance with corporate retention and disposal policies to ensure your data is always under your control, regardless of the number of drives that are installed in your Lenovo server.

- **Technical Account Manager (TAM)**

  Your single point of contact to expedite service requests, provide status updates, and furnish reports to track incidents over time, ensuring smooth operations and optimized performance as your business grows.

- **Enterprise Software Support (ESS)**

  Gain comprehensive, single-source, and global support for a wide range of server operating systems and Microsoft server applications.

For more information, consult our Lenovo Operational Support Services for Data Centers Services Brochure.

Lenovo Managed Services

Achieve peak efficiency, high security, and minimal disruption with Lenovo's always-on Managed Services. Our real-time monitoring, 24x7 incident response, and problem resolution ensure your infrastructure operates seamlessly. With quarterly health checks for ongoing optimization and innovation, Lenovo's remote active monitoring boosts end-user experience and productivity by keeping your data center's hardware performing at its best.

- **Managed Services**

  Lenovo Managed Services provides continuous 24x7 remote monitoring (plus 24x7 call center availability) and proactive management of your data center using state-of-the-art tools, systems, and practices by a team of highly skilled and experienced Lenovo services professionals.

  Quarterly reviews check error logs, verify firmware & OS device driver levels, and software as needed. We'll also maintain records of the latest patches, critical updates, and firmware levels, to ensure your systems are providing business value through optimized performance.

Lenovo Sustainability Services

Lenovo Sustainability Services helps you address sustainability priorities across the IT lifecycle, from offsetting emissions associated with device purchases and extending equipment life to securely managing assets at end of life. Together, these services support more circular IT practices while helping you protect data, manage costs, and recover value from technology investments.

- **Asset Recovery Services**

  Lenovo Asset Recovery Services (ARS) provides a secure, seamless solution for managing end-of-life IT assets, ensuring data is safely sanitized while contributing to a more circular IT lifecycle. By maximizing the reuse or responsible recycling of devices, ARS helps businesses meet sustainability goals while recovering potential value from their retired equipment. For more information, see the Simplify IT Asset Recovery page.

- **CO2 Offset Services**

  Lenovo's CO2 Offset Services offer a simple and transparent way for businesses to take tangible action on their IT footprint. By integrating CO2 offsets directly into device purchases, customers can easily support verified climate projects and track their contributions, making meaningful progress toward their sustainability goals without added complexity.

- **Lenovo Certified Refurbished**

  Lenovo Certified Refurbished offers a cost-effective way to support IT circularity without compromising on quality and performance. Each device undergoes rigorous testing and certification, ensuring reliable performance and extending its lifecycle. With Lenovo's trusted certification, you gain peace of mind while making a more sustainable IT choice.

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 21. 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 MX650 V3 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 60950-1
- 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, EN55024, EN55035, EN61000-3-2, EN61000-3-3, (EU) 2019/424, and EN IEC 63000 (RoHS))
- 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 KN32, Class A, KN35
- Japan VCCI, Class A
- Taiwan BSMI CNS15936, Class A; CNS15598-1; Section 5 of CNS15663
- Taiwan BSMI CNS15936, Class A; Section 5 of CNS15663
- Australia/New Zealand AS/NZS CISPR 32, Class A; AS/NZS 62368.1
- NEBS 3
- UL Green Guard, UL2819
- SGS, VOC Emission
- EPEAT (NSF/ ANSI 426) Bronze
- Japanese Energy-Saving Act
- EU2019/424 Energy Related Product (ErP Lot9)
- China CCC certificate, GB17625.1; GB4943.1; GB/T9254
- China CECP certificate, CQC3135
- China CELP certificate, HJ 2507-2011
- China ISCCC, GB40050-2021

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. **Key Features of Lenovo ThinkAgile Solutions for AI**
   2026-10-19 | 60 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 communicate the benefits of ThinkAgile for AI to key stakeholders.

   Published: 2026-10-19
   Length: 60 minutes

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

   Course code: DCLDAI202r2

2. **ThinkAgile Solutions for AI - Sales Strategies and Messaging**
   2026-10-08 | 18 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.

   Published: 2026-10-08
   Length: 18 minutes

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

   Course code: DTAP202

3. **Family Portfolio: ThinkAgile Systems**
   2026-09-29 | 35 minutes | Employees and Partners

   Gain a foundational understanding of the Lenovo ThinkAgile portfolio and the infrastructure platforms that power it. In this course, you will explore the ThinkSystem and ThinkEdge server families that serve as the foundation for ThinkAgile solutions, learn the differences between Certified Nodes and Integrated Systems, and examine the key capabilities of the FX, HX, MX, and VX product families.

   By the end of the course, you will be able to identify the core ThinkAgile offerings, differentiate deployment models, and articulate the unique features and benefits of each solution family to support customer conversations and solution recommendations.

   Published: 2026-09-29
   Length: 35 minutes

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

   Course code: DSDO102

4. **Position Lenovo ThinkAgile Solutions for AI**
   2026-09-29 | 18 minutes | Employees and Partners

   Discover how to confidently position Lenovo ThinkAgile Solutions for AI to address today's evolving enterprise challenges. In this introductory course, learners will explore the key business and technology factors driving AI adoption, understand the value proposition of ThinkAgile Hyper-Converged Infrastructure (HCI), and examine how ThinkAgile solutions support modern AI workloads.

   Through real-world use cases and deployment scenarios, you will learn how ThinkAgile Solutions for AI help organizations simplify infrastructure, accelerate AI initiatives, and achieve business outcomes with a scalable, integrated approach. By the end of this course, you will be able to identify customer challenges, articulate the benefits of ThinkAgile HCI, and recommend ThinkAgile-based AI solutions that align with customer needs.

   Published: 2026-09-29
   Length: 18 minutes

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

   Course code: DTAP200

5. **Lenovo Client Virtualization Solutions**
   2026-09-01 | 30 minutes | Employees and Partners

   This training provides tech sellers and partners with the details of the customer challenges and needs that make the case for the Lenovo client virtualization solutions. By the end of this course, you will learn the components that makeup our solutions, cover the details of the three LCV (Lenovo Client Virtualization) offerings, and discover when they are used and how they benefit customers.

   Published: 2026-09-01
   Length: 30 minutes

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

   Course code: DCV213r3
6. **Data Storage Solutions Primer**
   2026-07-30 | 45 minutes | Employees Only

   This course is part of the Lenovo ISG (Infrastructure Solutions Group) Primer Series - a learning program designed to help Client Managers build foundational knowledge, strengthen customer conversations, and recognize opportunities with greater confidence.

   By the end of this course, you will be able to:

   - Understand how storage connects to modern IT and business outcomes
   - Explain the importance of storage in data-centric environments
   - Identify opportunities and align storage solutions to customer needs

   Last Update: July 30, 2026

   Published: 2026-07-30
   Length: 45 minutes

   Start the training:
   Employee link: Grow@Lenovo

   Course code: DSTOO104
7. **Partner Technical Webinar - Azure Local Licensing & DCSC Config File Mgmt**
   2026-07-21 | 60 minutes | Employees and Partners

   In this 60 minute replay, Brian Faliero, WW ThinkAgile PM, presented Azure Local licensing options for ThinkAgile MX. Next, James Barrett, Lenovo Sr Design Analyst, demonstrated the new Config File Management capabilities for Partners in DCSC.

   Published: 2026-07-21
   Length: 60 minutes

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

   Course code: JUL1726

8. **VTT: A Deep Dive into Architecting and Positioning ThinkAgile Disaggregated Solutions with Microsoft and VMware**
   2026-06-25 | 60 minutes | Employees Only

   Join Catherine Maina, Lenovo Sr. Product Manager, Brian Faleiro, Lenovo Sr. Product Management Specialist and Chandrakandh Mouleeswaran, Lenovo Sr. Software Engineer for this technical deep dive on designing, positioning, and demonstrating ThinkAgile Disaggregated Solutions with Microsoft and VMware. As enterprises move beyond traditional HCI toward more flexible, composable infrastructure models, understanding disaggregation at both an architectural and operational level is critical to winning complex deals.
   This webinar goes beyond the basics to examine how ThinkAgile Disaggregated Solutions decouple compute and storage resources using software-defined intelligence—enabling independent scaling, optimized resource utilization, and improved workload alignment across hybrid environments.
   Through a detailed exploration of system architecture, integration points, and deployment models, you will gain the technical fluency required to engage in meaningful customer conversations, map solutions to workload requirements, and address architectural objections with confidence
   Key technical topics include:
   •Reference architecture of ThinkAgile Disaggregated Solutions (compute, storage, fabric, and management layers) with Microsoft and VMware
   •Software stack overview, including orchestration, automation, and API-driven control planes
   •Data services capabilities: performance, resiliency, scaling, and lifecycle management
   •Integration with virtualization platforms, Kubernetes ecosystems, and hybrid cloud strategies
   •Networking considerations, including east-west traffic patterns and fabric design
   •Deployment models and design patterns for common workloads (VDI, databases, AI/ML, and cloud-native apps)
   •Performance tuning and resource optimization strategies
   •Competitive technical differentiation vs HCI and composable infrastructure alternatives
   What you'll gain:
   •A clear understanding of how to architect and size disaggregated environments
   •Technical validation points to support proof-of-concept (POC) and customer demos
   •Talking points to address latency, complexity, and manageability concerns
   •Practical guidance to align customer workload requirements with optimal solution design

   Published: 2026-06-25
   Length: 60 minutes

   Start the training:
   Employee link: Grow@Lenovo

   Course code: DVCLD233

9. **Partner Technical Webinar - Disaggregrated Solutions for ThinkAgile**
   2026-06-01 | 60 minutes | Employees and Partners

   In this 60 minute replay, Catherine Maina and Brian Faleiro, Lenovo WW PMs for ThinkAgile, presented the newly updated options for external storge on ThinkAgile. And Pawan Misra, Lenovo NA PM for ThinkAgile gave an update on ThinkAgile MX in the TCE program.

   Published: 2026-06-01
   Length: 60 minutes

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

   Course code: MAY2926

10. **VTT Cloud Architecture - ThinkAgile in the Field: Real-World Insights to Shape Our Next-Gen Portfolio**
    2026-02-25 | 80 minutes | Employees Only

    Join Adam Mandelbloom, Lenovo Technical Marketing Manager and members of the ThinkAgile Product Marketing Team leading this roundtable discussion on how Lenovo continues evolving the ThinkAgile portfolio, it's critical that our product roadmap is grounded in real-world field experience. This interactive webinar brings together technical sellers from across the organization to share frontline insights, uncover unmet customer needs, and align on the architectural direction for the next generation of ThinkAgile solutions.

    We'll begin by clarifying key terminology—such as our positioning of HCI as Storage Virtualization and refining our shared definition of Edge—to ensure consistent messaging and understanding across teams. From there, we'll explore the customer challenges, deal patterns, and platform-level blockers that shape how ThinkAgile performs in the market today.

    Key Topics We Will Cover:
    Portfolio Performance & Customer Needs
    - Where is the ThinkAgile portfolio winning—and where is it losing?
    - What core problems are customers trying to solve with ThinkAgile?
    - How do customers decide between 1 socket, 2 socket, and 2+ socket configurations?
    Gaps, Opportunities & Portfolio Decisions
    - What ThinkAgile configurations or capabilities do you wish we offered but currently don't?
    - Which ThinkAgile platforms or variants should we consider retiring?
    - Deal blockers related to power limitations, GPU options, or licensing restrictions
    - Competitive losses broken down by architecture or platform type
    Strategic Closing Discussion
    - What is the one critical bet Lenovo must get right for the next generation of ThinkAgile?

    Tags: Microsoft, Nutanix, Technical Sales, ThinkAgile, VMware

    Published: 2026-02-25
    Length: 80 minutes

    Start the training:
    Employee link: Grow@Lenovo

    Course code: DVCLD231

11. **Partner Technical Webinar - ThinkAgile MX & Thinkagile HX Updates**
    2026-02-04 | 60 minutes | Employees and Partners

    In this 60-minute replay, First, Brian Faleiro presented the latest updates on ThinkAgile MX. Second, Pawan Misra shared updates on ThinkAgile HX hw and software.

    Tags: ThinkAgile

    Published: 2026-02-04
    Length: 60 minutes

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

    Course code: JAN3026

12. **VTT Cloud Architecture: The Lenovo ThinkAgile Demo Toolkit - Maximizing Resources and Driving Customer Confidence**
2026-01-22 | 63 minutes | Employees and Partners

Seeing is believing when it comes to showcasing the value of ThinkAgile.
As a technical seller, solution architect or pre-sales engineer you know that a successful demonstration can be the linchpin of the sales cycle. ThinkAgile offers simplicity, scalability, and TCO reduction, but conveying these benefits effectively requires more than just a demo environment—it requires a strategy and a mastery of the resources at your disposal.

Did you know we have various pre-built demos and environments available for use with your customers?
This exclusive, Lenovo focused webinar is your master class on leveraging our existing HCI demo assets. We will dive into what's available, how to use it for maximum impact, and gather your crucial feedback to refine our future technical sales tools.

This session moves beyond product features to focus entirely on execution and resource utilization.
- Catalog of HCI Demo Resources: Get a comprehensive, up-to-date tour of all available assets, including:
- Pre-recorded Demo Videos for different workloads (VDI, Lifecycle Management).
- Clickable, Interactive Product Tours for early-stage discovery.
- Reference Architecture Demos illustrating hybrid cloud and multi-site deployments.

Your Voice, Our Future Demos (Feedback Session): This is your opportunity to directly influence the tools you use every day. We will dedicate time to:
- Reviewing the effectiveness of current demos in competitive scenarios.
- Gathering direct feedback on what critical use cases or feature gaps need to be covered in future demo development.
- Discussing any technical or logistical issues encountered while using the current environments.

Tags: Microsoft, Nutanix,Software Defined Infrastruture (SDI), ThinkAgile, VMware

Published: 2026-01-22
Length: 63 minutes

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

Course code: DVCLD229

13. **Data Protection**
    2025-12-23 | 25 minutes | Employees and Partners

    This course focuses on data protection and on Lenovo's protection portfolio - tools, platforms, and trusted ecosystem partners.

    By the end of this course, you will be able to:

    - Explain why data protection is a critical business priority by recognizing the real-world impact of data loss on operations, finances, and trust.
    - Apply core data protection principles to assess customer risk and identify gaps using a structured protection strategy.
    - Connect customer protection needs to Lenovo-native and partner solutions to position the right data protection approach.

    Tags: Microsoft, Nutanix, VMware

    Published: 2025-12-23
    Length: 25 minutes

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

    Course code: DSTOP203

14. **Data Modernization**
    2025-12-22 | 20 minutes | Employees and Partners

    This course focuses on storage modernization and how Lenovo's evolving portfolio helps you lead smarter conversations, deliver stronger business value, and help you confidently position Lenovo as your customers' trusted infrastructure partner.
    This course is built to help you lead smarter customer conversations about storage modernization.
    The three main objectives are:
    - Learn why modernization is urgent - and what happens if customers delay
    - Find out how to help customers choose between Enterprise & HCI based on performance, scale, & operations
    - Discover how to match Flash and Unified Storage to Real-World Customer Needs.

    Tags: Sales, Storage

    Published: 2025-12-22
    Length: 20 minutes

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

    Course code: DSTOP202

15. **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

16. **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

17. **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

18. **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

19. **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

20. **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

21. **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

22. **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

23. **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

24. **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

25. **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

26. **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: DVDS209

27. **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

28. **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

29. **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

30. **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

31. **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

32. **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

33. **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

34. **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

35. **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

36. **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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