

# ThinkAgile MX Solutions Making Azure Local Solutions Easy

### Accelerate your Business

Deploying hyperconverged infrastructure (HCI) is the key to simplifying and modernizing operations for traditional and state-of-the-art IT environments, streamlining resource management, enhancing scalability, and improving overall efficiency. Large storage deployments are increasingly being replaced by HCI-based solutions for most general-purpose workloads. HCI has proven to deliver better efficiency and price performance in the datacenter. Additionally, financial, healthcare, education retail and many other customers have been choosing a hybrid approach, migrating certain workloads to the cloud, while keeping other workloads on-premises.

Azure Local is Microsoft's HCI solution for customers that wish to run workloads on-premises and extend easily to Azure for hybrid capabilities such as back-up, site recovery, storage, cloud-based management, monitoring and more. It is an HCI host operating system from Microsoft, delivered as an Azure service, providing the latest and up-to-date security, performance, and feature updates. Azure Local builds on the foundation of the Microsoft Windows Server Software Defined program and provides a certification path for Storage Spaces Direct solutions. Lenovo ThinkAgile MX Solutions are fully engineered, jointly validated and integrated solutions that can extend Azure Arc enabled infrastructure from hybrid multi-cloud environments to datacenter and at the edge with the flexibility to help you build and operate applications and services. Customers can quickly and easily:

- Develop cloud-native apps and operate them anywhere (on-prem, edge or cloud) using the same Azure portal
- Harness data insights from the cloud to the edge
- Get simplified edge computing infrastructure for low-latency application
- Meet residency and sovereignty needs of the onprem platform infrastructure
- Perform life cycle management using Lenovo XClarity software

Lenovo ThinkAgile MX Solutions (Premier Solutions, Integrated Systems, and Certified Nodes) combine the Storage Spaces Direct technology included in this host OS, with industry leading Lenovo servers to deliver HCI building blocks that build your infrastructure solutions.

ThinkAgile

ThinkAgile MX Solutions are built with certified hardware components, and include deployment/update features built into Windows Admin Center and Solution Builder Extension. Benefits like these allow businesses to deploy solutions quickly and easily.

#### **Key Benefits**

- Simplicity: Lenovo XClarity extension integrates with Windows Admin Center from Microsoft, providing a unified single-pane-of-glass simple management experience across infrastructure, virtual machines, software, and hardware.
- Flexibility: ThinkAgile MX Solutions offer a wide range of processors, memory, and storage options to provide the maximum flexibility for customizing your infrastructure.
- Faster time to value: In traditional IT, a solution is designed, tested, implemented, and maintained requiring significant time and energy. With HCI, this burden has been transferred to the solution provider. Microsoft created S2D to solve the storage challenge and Azure Local solutions to ensure robust and viable platforms.

Lenovo has designed, tested, and validated ThinkAgile MX Solutions offerings to quickly and easily provide the solutions you need, with the confidence required, to exceed the stringent requirements of today's IT. The result is that you can quickly deploy a robust, highperformance HCI solution and rapidly solve your IT challenges.

## **Overview: ThinkAgile MX Solutions**

The Lenovo ThinkAgile MX650 V4 and ThinkAgile MX630 V4 are 2-socket systems that are designed for deploying highly available, highly scalable hyper-converged infrastructure (HCI) and software-defined storage (SDS) from Microsoft on Lenovo enterprise platforms that feature Intel® Xeon® 6 processors (formerly code named "Granite Rapids"), delivering fully validated and integrated Lenovo hardware and firmware that is certified for Microsoft Azure Local solutions.

ThinkAgile MX650 V3 and ThinkAgile MX630 V3 systems feature enterprise-class reliability, management, and security and deliver fully validated and integrated solutions that are certified for Microsoft Azure Local. These systems also feature GPU support, ideal for enabling AI training, inferencing and data visualization scenarios, HPC workloads, virtual desktops and graphics intensive applications.

The Lenovo ThinkAgile MX450 Edge Integrated System is designed for deploying highly available, HCI from Microsoft on purpose-built Lenovo edge servers. This Intel-based system is optimized for various types of edge and ROBO workloads that need compute power, data storage, and network closer to where data is generated, such as IoT, Smart Surveillance, or AI inferencing, and require small compute footprint and operations in rugged environments.

The Lenovo ThinkAgile MX455 V3 Edge Premier Solution is a turnkey AMD-based offering, purpose-built for use in remote offices/branch offices (ROBO) and at the edge. With access to a GPU, the solution is ideal for AI training, inferencing, data visualization, HPC workloads, and Azure Virtual Desktop environments that utilize GPU partitioning for graphics-intensive applications.

# ThinkAgile

#### **Integrated System Features**

ThinkAgile MX Integrated Systems include Azure Local, and optionally include Windows Server 2022 Datacenter in case you require unlimited guest OS virtual machine licenses. ThinkAgile MX Certified nodes optionally include the Azure Local software or Windows Server 2022 Datacenter depending on their needs. The Azure Local OS provides the following benefits:

- Storage Spaces Direct (S2D): State of the art softwaredefined storage from Microsoft with multiple highperformance resiliency options, deduplication, compression and more.
- Windows Admin Center (WAC): A web-based management portal is included with the software at no extra cost. Deployment and update features in WAC make deployment extremely simple and easy to perform. Additionally, Lenovo's XClarity plugin allows you to deploy their hardware as well as software from the same interface, enabling single pane of management.
- Hyper-V: Hypervisor is included in the license
- **Software-Defined Networking**: Features such as virtual network encryption, firewall auditing, virtual network peering allows you to get the benefits of a more secure software defined network with Azure Local.
- Azure Local is hybrid by design, and you can benefit from native integration with Azure Arc and Azure Monitor and connect to Azure for a variety of Azure hybrid services seamlessly. Fleet management for hosts and VMs allows you to monitor and manage clusters at scale.

### As Much Help As You Need

Lenovo and Lenovo partners have a comprehensive portfolio of professional services that supports the full life cycle of your infrastructure. At every stage—from planning to deploying, supporting, optimizing, and end of life—extra help is available to accelerate meeting your business objectives.

#### Lenovo and Microsoft

With co-located engineering organizations and a history of technical collaboration, Microsoft and Lenovo consistently deliver innovative joint solutions for the data center. Lenovo's leadership in reliability, customer satisfaction, and performance, combined with Microsoft's leadership in software and cloud services, continues to deliver innovative data center solutions and lower TCO for our joint customers.

# ThinkAgile

# **ThinkAgile MX Solutions**

Flexible building block for your Microsoft Azure Local solutions.

#### Intel® Xeon® 6 processor based ThinkAgile MX Model Specifications

Model	ThinkAgile MX650 V4	ThinkAgile MX630 V4	
Form Factor	2U	1U	
Segment	Hyperconverged Infrastructure - Microsoft Azure Local solutions		
Processor	Up to 2x Intel® Xeon® 6 processors		
Memory	Up to 8TB using 32x 256GB RDIMMS		
GPU	Up to 10x single-width GPUs or 2x double-wide GPUs	Up to 3x single-wide GPUs	
Network	<ul> <li>2x OCP 3.0 rear-accessible slots with PCIe Gen 5 interface</li> <li>Additional PCIe adapters supported</li> <li>1GbE dedicated Management port</li> </ul>	• 2x OCP 3.0 adapter: 1Gb, 10Gb, 25Gb	
Drive Bays	<ul> <li>Up to 20x 3.5", 40x 2.5" drive bays, 32x E3.S</li> <li>Front: Up to 12x 3.5" / 24x 2.5" / 32x E3.S, hot-swap</li> <li>Mid (internal): 8x 2.5", simple swap</li> <li>Rear: up to 4x 3.5" / 8x 2.5", hot-swap</li> <li>2x Internal M.2 with optional RAID 1</li> <li>2x front or rear hot-swap M.2 with RAID 1</li> <li>PCIe 5.0 NVMe drive support</li> <li>36x Onboard NVMe ports</li> </ul>	Front bay choices: • 10x 2.5" AnyBay • 4x 3.5" SAS/SATA Rear bay choices: • 2x 2.5" SAS/SATA or NVME (Optional)	
Storage Options - Capacity Tier	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: • 4-12x HDDs: 1TB to 14TB • 4-28x SSDs: 480GB to 7.68TB • 4-28x NVMe; 750GB to 15.36TB	
Cache Tier	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 12.8TB • 2-4x hot-pluggable NVMe: 800GB to 12.8TB	
Power Supply	Up to two hot-swap redundant AC power supplies 800W/1300W/2000W	Up to two hot-swap redundant AC power supplies 750W/1100W/1800W/2400W/2600W	
Systems Management	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 Standard (Solution Builder Extension), the best recipes can be acquired.	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 Standard (Solution Builder Extension), the best recipes can be acquired.	
Software	Azure Local OS preloaded		
Warranty and Support	Three-, four-, or five-year software support and subscription (matches the duration of the selected warranty period along with Lenovo Premier Support.		



Model	ThinkAgile MX650 V3 Premier Solution - SR650 V3	ThinkAgile MX650 V3 (Integrated Systems & Certified Node) - SR650 V3	ThinkAgile MX630 V3 (Integrated Systems & Certified Node) - SR630 V3	
Form Factor	2U	2U	1U	
Segment	Hyperconverged Infrastructure – Microsoft Azure Local solutions			
Processor	1x or 2x 5th Gen Intel® Xeon® Scalable processors (Emerald Rapids) or 4th Gen (Sapphire Rapids)			
Memory	Up to 8TB in 32x slots, using 16GB-256GB DIMMS			
GPU	3x DW GPU up to 300W each, 8x SW GPU up to 75W each, 6x SW GPU up to 150W each			
Network	10/25GbE adapters (RoCE or iWARP), 100GbE (RoCE) RDMA network adapters			
Drive Bays	16x 3.5", 28x 2.5"		4x 3.5", 12x 2.5"	
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	
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		
Power Supply	Dual redundant power supply per server. 750W/1100W/1800W/2400W/2600W			
Systems Management	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.	Optional hardware management via Lenovo XClarity and resource management via Azure Arc and Microsoft Windows Admin Center.		
Software	Azure Local MX Premier (preloaded on Premier Solutions)	Azure Local 23H2 OS (preloaded on Integrated System) Windows Server 2022 Datacenter (optional)		
Warranty and Support		ith all purchases of ThinkAgile MX Premi s, support is available for 3 to 5 years.	er Solutions and Integrated Systems.	

#### 5th Gen Intel® Xeon® Scalable processor-based ThinkAgile MX Model Specifications



# 6 | ThinkAgile MX Solutions

Model	ThinkAgile MX Solutions (Appliance & Certified Node) – SR650 V2	ThinkAgile MX Solutions (Appliance & Certified Node) – SR630 V2	
Form Factor	2U	1U	
Segment	Hyperconverged Infrastructure – Microsoft Azure Local solutions		
Processor	2x 3rd Gen Intel® Xeon® Scalable processors, 8-40 cores		
Memory	Up to 4TB in 32x slots, using 16GB-128GB DIMMS		
Network	10/25GbE adapters (RoCE or iWARP), 100GbE (RoCE) RDMA network adapters		
Drive Bays	16x 3.5", 28x 2.5"	4x 3.5", 12x 2.5"	
Storage Options - Capacity Tier	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	
Cache Tier	Depending on configuration: 2-6x SSDs: 800GB to 6.4TB 2-8x hot-pluggable NVMe: 750 GB to 6.4TB	Depending on configuration: 2-4x SSDs: 800GB to 6.4TB 2-4x hot-pluggable NVMe: 750 GB to 6.4TB	
Power Supply	Dual redundant power supply per server. 750W/1100W/1800W/2400W/2600W		
Systems Management	Optional hardware management via Lenovo XClarity and resource management through Microsoft Windows Admin Center		
License Options	Azure Local Software (Included with Appliance), Windows Server 2019 Datacenter (optional)		
Warranty and Support	Lenovo Premier Support is paired with all purchases of ThinkAgile MX Integrated Systems. Dependen on the customer's needs, support is available for 3 to 5 years.		

#### 3rd Gen Intel® Xeon® Scalable processor-based ThinkAgile MX Model Specifications

#### About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$62 billion revenue global technology powerhouse, ranked #171 in the Fortune Global 500, employing 77,000 people around the world, and serving millions of customers every day in 180 markets. Focused on a bold vision to deliver smarter technology for all, Lenovo is expanding into new growth areas of infrastructure, mobile, solutions and services. This transformation is building a more inclusive, trustworthy, and sustainable digital society for everyone, everywhere.

### For More Information

To learn more about ThinkAgile MX Certified Nodes, contact your Lenovo representative or Business Partner, or visit lenovo.com/thinkagile. For detailed specifications, consult the ThinkAgile MX product guides.



ThinkAgile

#### © 2025 Lenovo. All rights reserved.

**Availability**: Offers, prices, specifications and availability may change without notice. Lenovo is not responsible for photographic or typographic errors. **Warranty**: For a copy of applicable warranties, write to: Lenovo Warranty Information, 1009 Think Place, Morrisville, NC, 27560. Lenovo makes no representation or warranty regarding third-party products or services. **Trademarks:** Lenovo, the Lenovo logo, AnyBay<sup>®</sup>, ThinkAgile<sup>®</sup>, and XClarity<sup>®</sup> are trademarks or registered trademarks of Lenovo. AMD is a trademark of Advanced Micro Devices, Inc. Intel<sup>®</sup> and Xeon<sup>®</sup> are trademarks of Intel Corporation or its subsidiaries. Microsoft<sup>®</sup>, Arc<sup>®</sup>, Azure<sup>®</sup>, Hyper-V<sup>®</sup>, Windows Server<sup>®</sup>, and Windows<sup>®</sup> are trademarks of Microsoft Corporation in the United States, other countries, or both. Other company, product, or service names may be trademarks or service marks of others. Document number DS0058, published May 16, 2025. For the latest version, go tolenovopress.lenovo.com/ds0058.