Simplify your Edge-to-Cloud Deployments with the Lenovo ThinkAgile MX455 V3 Edge Premier Solution for Azure Local

Article

The Hybrid Cloud - Hyperconverged market is going through an inflection due to the explosion of AI-driven use cases. This has driven the need for powerful servers that can do computation, virtualization, and storage at the edge. Enterprises seek innovative edge solutions that provide reduced latency, enhanced security, regulatory compliance, and simplified deployment & management of edge infrastructure.

Introducing the ThinkAgile MX455 V3 Edge Premier Solution

To address these requirements, Lenovo is introducing the new ThinkAgile MX455 V3 Edge Premier Solution, new turnkey AMD-based offering as part of the Microsoft Azure Local Premier Solutions category, that provides customers with an improved operational experience, faster time to value, and greater flexibility with as-a-service procurement options.

Figure 1. ThinkAgile MX455 V3 Edge Premier Solution

Designed in collaboration with Microsoft, Lenovo is delivering an AI-ready edge infrastructure solution that integrates hardware, software, and cloud seamlessly for customers, significantly accelerating the time to value. The Lenovo Premier Solution for Azure Local simplifies Day 0 planning, dramatically reduces the time and resources needed for Day 1 remote (and local) deployments and allows for streamlined and consolidated Day 2 operational and maintenance support.

Benefits of the offering

In today's landscape, organizations have many factors to consider when building their IT infrastructures, such as financial constraints, physical footprint, energy consumption, security, latency, regulatory compliance, and more.

In line with these key considerations, Lenovo's MX455 V3 Edge Premier Solution for Azure Local provides the following benefits:

- **A high-performance edge solution**

  Customers deploy into environments that often have physical space constraints, limited power options, and acoustic concerns, and still need the functionality and performance of a server-class device.

  Lenovo is offering a ruggedized, purpose-built server, powered by AMD, that's specifically designed for the edge. This half-depth 2U server is 32% more efficient [1] in its power usage and operates at 45 db (like a quiet office) with twice the number of cores and GPUs as competitive offerings. It is an enterprise-class server with features and functionalities specially designed for the edge.

- **Reliability**

  Failures and/or downtime cost companies time and money. ThinkAgile MX455 V3 Edge Premier Solution combines Lenovo's industry-leading reliability ratings [2] with rigorous and continuous validation and testing by Lenovo and Microsoft to increase reliability and uptime.

- **Flexibility of procurement options**

  With a variety of budget constraints and economic dynamics in the market, customers don't want to be locked into rigid financing models. They want options.

  The new Premier Solution is available as a traditional CAPEX model or as an OPEX model with Lenovo TruScale giving customers the financial flexibility they need.

- **Ease of deployment**

  With IT departments being stretched and budgets tight in the current environment, organizations are looking for ease of deployment, especially at larger scales where there are dozens, hundreds, or thousands of sites.

  ThinkAgile MX455 V3 Edge Premier Solution integrates Lenovo Open Cloud Automation (LOC-A) with Azure Local Cloud Deployment, to provide near Zero Touch Provisioning at scale. The MX455 V3 Edge Premier Solution's integration with Azure Local and Azure Arc provides consistent management across hybrid edge environments and seamless experience from edge to cloud, enabling organizations to harness the power of cloud native and AI technologies.

- **Simplified lifecycle management**

  Firmware and software updates often require interrupted downtimes and specialized experts to perform maintenance and updates.

  ThinkAgile MX455 V3 Edge Premier Solution greatly reduces downtime by combining Lenovo tools with new features in Azure Local to enable remote in-place updates for the entire cluster.

- **Streamlined support experience**

  Stressed and overburdened IT staff don't want the complexity of multiple support paths to resolve any issues that may occur.

  ThinkAgile MX455 V3 Edge Premier Solution provides a single point of contact for Lenovo Support for all hardware and software issues.

- **Secure by default**

  Recent instances of cyber-attacks and ransomware have driven security to the forefront for all organizations. With the latest version of Azure Local, the ThinkAgile MX455 V3 Edge Premier Solution has more than 300 security settings enabled from Day 1. Default security settings provide a consistent security baseline to ensure that devices start in a known good state.

[1] On a ThinkAgile MX455 V3 with an AMD EPYC 9004 64-core 200W processor, compared to a similar competitive system (Dell PowerEdge XR7620 or Supermicro SYS-221HE-FTNR) using dual Intel 4th Gen Xeon Scalable processors (each 32 cores) 225W, we consume 31.6% less power. This means we are 32% more efficient than the competition for similar performance.

[2] See the ITIC Reliability Study.

Lenovo AI for All

In line with Lenovo's commitment to driving AI innovation, at Lenovo's 9th Global Tech World event held in Austin, Texas, last October, Lenovo launched its "AI for All" strategy that covers purpose-built AI-ready devices, infrastructure, solutions, and services. In August of last year, Lenovo announced a US$1 billion investment over three years in AI innovation.

We are building an AI innovation ecosystem by collaborating closely with academic, industry, other partners like Microsoft on core areas and key applications, such as: AI software (Lenovo LiCO, intelligent assistants, intelligent services, intelligent manufacturing, intelligent decision-making, and smart healthcare.

With more enterprise data being processed outside of the data center, Lenovo is committed to supporting AI workloads everywhere, ensuring purpose-built performance and maximizing computing efficiency that is critical to enabling implementation in remote settings.

Conclusion

The Lenovo ThinkAgile MX455 V3 Edge Premier Solution harnesses Azure Local, Azure Arc innovation and cutting-edge AMD EPYC 8004 series processor to deliver outstanding efficient performance at the edge, unlocking data intelligence and enabling next-generation AI applications while lowering power consumption and total cost of ownership in a compact, quiet design that works discreetly in remote settings.

As emerging innovations like Large Language Models (LLMs) require more processing power, the new solution delivers an optimized combination of power, storage, and expandability to support even the most intensive AI and workload consolidation capabilities at the edge.

For more information on the ThinkAgile MX455 V3 Edge Premier Solution, see the product guide: https://lenovopress.lenovo.com/lp1889-thinkagile-mx455-v3-edge-premier-solution

Related product families

Product families related to this document are the following:

- ThinkAgile MX Series for Microsoft Azure Local
- ThinkEdge SE455 V3 Server

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