



# Edge Computing

**When real-time insights are critical, bring AI capabilities right where you need it the most — at your network edge**

We live in an increasingly data-driven world. People and things generate data outside your data center at the “last mile” of the network.

The demand to make mission-critical and time-sensitive decisions at the network edge fuels a growing need to bring powerful compute enabled by Artificial Intelligence (AI) to the edge. Fortunately, this is being made possible by the availability of high-performance networking and edge computing hardware.

When real-time insights are critical, the latency caused as data travels to data centers or the cloud and then back to the device can be especially problematic. For example, self-driving cars cannot wait for the roundtrip of data to know when to brake, or how fast to travel.

The growing need for real-time decision making drives the need for intelligence to the edge and complements less time-sensitive compute in your data center or cloud.

**Wherever you define the edge, Lenovo has your edge-computing**

With the proliferation of data from IoT devices, smarter networks, and the desire to automate human tasks at scale, edge computing is becoming an essential solution. Lenovo transformed the best-in-class capabilities from industry-leading PC, Motorola mobile, and innovative data center solutions, to design and deliver an edge-computing portfolio with a ‘fit anywhere’ form factor. Wireless connectivity, tamper-proof security, built-in AI, and zero-touch provisioning add to manageability.

*When the major city in South America needed to enable the next generation of edge solutions, they looked to Lenovo as their strategic partner. Much of the growth in the smart city market is driven by mission-critical security initiatives, reliant on an array of sensors and databases, in conjunction with video analytics, including facial recognition, behavioral analysis, and license plate recognition tools. Lenovo provided a solution to centrally manage 3,000 surveillance cameras with faster video ingest rates, higher resiliency, and smaller, space conscious appliances.*



## With the avalanche of data at the edge, having ‘data-center like’ compute performance and 24/7 availability is critical for delivering real-time data insights

Lenovo offers purpose-built edge servers that fit anywhere. They are designed with high-performance CPUs and GPUs to do real-time analytics and AI at the edge. Further, they include a choice of integrated storage and data management for a complete edge computing solution. For example, Lenovo’s deep partnership with Microsoft enabled the delivery of the first Azure Stack HCI edge solution with seamless integration between Lenovo XClarity System Management and MS Windows Admin Center.

Edge computing works hand in hand with your data center and the cloud to provide a flexible solution based on your data collection and analysis needs. For real-time collection and analysis, the edge is ideal for specific workloads. At the same time, the cloud can provide a centralized location for large scale analytics. Together they provide real-time and longer-term insights. Lenovo enterprise-class all-flash and hybrid storage solutions offer seamless data scaling from the edge to the data center to the cloud—all while keeping your data secure.



**Edge environments can be hostile when it comes to temperature, vibration, dust, and even potential tampering.**

**It would help if you had a rugged solution designed for varying environments in the field – inside or outside**

Lenovo edge servers come with integrated Wi-Fi to enable zero-touch provisioning and remote management without wires. We’ve designed in tamper-proof physical security, data encryption, and a temperature resilient design so you can be confident your Lenovo edge-server will be working, wherever your edge compute is located.

Lenovo edge servers can handle temperatures from 0° to 55°C and tolerate locations with high dust and vibration—such as construction site trailers and manufacturing floors— or a traditional office or branch location due to its office-friendly acoustics.





**Lenovo has the expertise to define your IoT Edge strategy, evaluate your analytics & AI requirements, and run proofs-of-concept needed to get started fast**

Lenovo AI innovation centers offer an environment to conduct edge POCs, leverage ready-to-use tools, and access our experts in AI and edge computing. We provide workshops to help you get started, in-depth strategy engagements, and managed services. When you are ready to deploy, we have built high-performance AI inference capability into space-efficient servers for visual compute or other automation tasks.

[Learn more about Edge Computing](#)



Only Lenovo offers a breadth of purpose-built edge computing solutions that bring industry-leading compute performance, security, and manageability, right where you need it for real-time analytics and AI.

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