



Edge computing reference design for industrial applications

Based on Lenovo ThinkSystem technology

When it comes to server technology, Lenovo™ offers enterprise roots that run deep. Now, Lenovo is partnering with Schneider Electric to deliver complete EcoStruxure Micro Data Center solutions to support edge data centers.

EcoStruxure Micro Data Center solutions sit close to applications to ensure low latency and high performance from Industrial Internet of Things (IIoT) and other applications while offering protection for IT equipment in edge computing installations that must coexist in non-IT environments. Constant condition monitoring helps ensure optimal performance for all IT equipment and applications. Lower latency means users who depend on IIoT applications get the data they want and need faster and more reliably.

The solutions are also highly scalable, and able to adapt as business requirements change. They also put a premium on security, both in terms of the physical IT infrastructure and in helping to prevent intrusions from IIoT devices.

Schneider Electric has worked closely with Lenovo to develop standard edge computing reference designs, so companies can roll out EcoStruxure Micro Data Center solutions quickly without sacrificing reliability or performance. Each solution is:

- Purpose-built and pre-validated for Lenovo ThinkSystem
- Pre-validated for AVEVA System Platform applications
- Optimized for applications with 5,000 – 100,000 data points
- Based on secure, comprehensive infrastructure



Designed in collaboration with:

AVEVA

Lenovo

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by Schneider Electric

Specifications

Lenovo SR250 server

- Lenovo ThinkSystem SR250 is an affordable, single-socket 1U rack server for applications that need optimized performance and flexibility for future growth, along with enterprise-class reliability, management, and security
- The SR250 server offers a wide range of processors — from Intel Celeron to Intel Xeon E Series
- Supports memory capacity of up to 64 GB and internal storage of up to 32 TB

Complete EcoStruxure Micro Data Center solutions

Along with Lenovo and other global partners, Schneider Electric has developed products, applications, and solutions that work together seamlessly. Our reference designs are engineered and tested with our IT Alliance Partners, including Lenovo, and designed in collaboration with AVEVA.

The solution is optimized for AVEVA System Platform applications that have a requirement for:

- Continuous streaming of near-real-time data from multiple sources
- Persistent workloads
- High CPU clock speeds
- Mostly low disk capacity requirements, but benefits from high IOPs disk throughput
- Data latency from real-world to screen: 1 – 2 seconds
- Recovery point objective: configurable from less than 1 second to 15 minutes
- Data loss objective: configurable from 0 – 60 seconds

Schneider Electric provides all required data center physical infrastructure and remote management software in a single self-contained, secure enclosure for converged and hyperconverged architectures. You save engineering time and reduce risk while delivering a complete, optimized, highly energy-efficient IT solution.

Type	Part Number	Description
Rack	AR106VI	NetShelter™ WX 6U Low-profile Wall Mount Enclosure 230V Fans
UPS	SMT1500RM12UNC	APC™ Smart-UPS 1500VA LCD RM 2U 230V with Network Card
PDU	AP7920B	Rack PDU, Switched, 1U, 12A/208V, 10A/230V, (8)C13
Security & Environmental Monitoring	NBRK0250 or NBRK0750*	NetBotz™ Rack Monitor 250 or NetBotz Rack Monitor 750*
	NBPD0165 (optional)	NetBotz Camera Pod 165 (optional)
Sensor	NBES0303 (Qty 2)	NetBotz Door Switch Sensors (2) for an APC Rack - 12 ft.
Blanking Panel	AR8136BLK	1U 19" Black Modular Toolless Airflow Management Blanking Panel - Qty 10
Other	AR8471	AR106V Caster Kit
Software & Service	SFTWES5-DIGI and/or WEXTWAR1YR-SP-02	EcoStruxure IT Expert Access for 5 Nodes and/or 1 Year Extended Warranty (Renewal or High Volume)
Lenovo	---	Lenovo ThinkSystem SR250 or SR530

*Required for NBPD0165

Explore edge computing solutions at apc.com/edge

Schneider Electric Industries SAS

35, Rue Joseph Monier 92506
Rueil Malmaison, France

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