Edge computing reference design for industrial applications

Based on HPE ProLiant technology

With its deep experience in the enterprise data center market, HPE® understands what it takes to create effective edge data centers. Now, HPE has teamed with Schneider Electric to provide edge computing solutions with certified interoperability, dramatically streamlining the process of deploying EcoStruxure Micro Data Center solutions that rely on hyperconverged infrastructure (HCI).

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 installations that must coexist in non-IT environments.

HPE and Schneider Electric integrated edge computing solutions are highly scalable and able to easily adapt computing capacity and infrastructure to increasing volumes of data. They also put a premium on security, both in terms of the physical IT infrastructure and in helping to prevent intrusions from IIoT devices.

HPE and Schneider Electric have worked together to deliver standardized infrastructure optimized to run applications based on AVEVA™ System Platform, fulfilling requirements 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

And, Schneider Electric's EcoStruxure IT software and services allow for remote management, reducing the need for and cost of on-site IT support staff.

Designed in collaboration with: AVEVA   Hewlett Packard Enterprise

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Specifications

HPE and Schneider Electric reference design for industrial edge

- Purpose-built and pre-validated solution for HPE ProLiant
- Pre-validated edge solution for AVEVA System Platform applications
- Optimized for applications with 5,000 to 100,000 data points
- Secure, comprehensive infrastructure

Features and benefits:

- HPE ProLiant DL360 Gen10 server supports industry-standard technology leveraging the Intel™ Xeon Scalable processor with up to 28 cores, 12G SAS and 3.0 TB of 2933 MT/s HPE DDR4 SmartMemory
- HPE ProLiant DL360 Gen10 server comes with services offered by HPE Pointnext to accelerate digital transformation, increase agility and stability, and reduce risk
- Unmatched expandability packed in a dense 1U rack design with up to three PCIe 3.0 slots
- HPE iLO 5, the world's most secure industry standard servers with HPE silicon root of trust technology to protect against attacks
- Network of global partners to deliver products, applications, and solutions that work together seamlessly to meet the needs of industrial edge computing applications

The solutions follow reference designs engineered and tested with Schneider Electric IT Alliance Partners and aligned with AVEVA System Platform. You save engineering time and reduce risk while delivering a complete, self-contained, secure, optimized, and highly energy-efficient IT solution.

Type	Part Number	Description
Rack	AR106VI	NetShelter™ WX 6U Low-profile Wall Mount Enclosure 230V Fans
UPS	SMT1500RMI2UNC	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* NBPD0165 (optional)	NetBotz™ Rack Monitor 250 or NetBotz Rack Monitor 750* 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)
HPE	——	HPE ProLiant DL360 Gen10

Required for NBPD0165

Explore edge computing solutions at apc.com/edge

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