Life Is On | **Schneider** Electric

Schneider Electric Announces New Solutions to Address the Energy and Sustainability Challenges Spurred by AI

- Latest announcements bolster company's mission to decarbonize digital infrastructure, while enabling customers to deploy more sustainable, AI-ready data center solutions anywhere, at scale.

- New GB200 NVL72 reference design, co-developed with NVIDIA, provides a proven, validated, and highly energy efficient architecture to support NVIDIA's new Blackwell chip.

- Introduces Galaxy VXL UPS, the industry's most compact, high-density power protection system for AI, data center, and large-scale electrical workloads.

Rueil-Malmaison (France), December 04, 2024 – Schneider Electric, the leader in the digital transformation of energy management and automation, has today accelerated its end-to-end AI-ready data center solutions with new announcements that address the urgent energy and sustainability challenges driven by high demand for AI systems.

The first part of the announcement is a **new data center reference design, co-developed with NVIDIA,** which will support liquid-cooled, high-density AI clusters of up to 132 kW per rack. Optimized for NVIDIA's GB200 NVL72 and Blackwell chips, the design streamlines planning and deployment with proven, validated architectures, addressing the unique challenges of utilizing liquid cooling at-scale.

Additionally, Schneider Electric has today introduced its **new Galaxy VXL uninterruptible power supply (UPS),** the industry's most compact, high-density UPS designed for AI, data center, and large-scale electrical workloads. Galaxy VXL UPS offers 52% space savings compared with the industry average, and with a power density of up to 1042 kW/m², this scalable, 1.25 MW modular UPS is designed to deliver more efficient power in a smaller, high-density footprint.

Both innovations form part of Schneider Electric's end-to-end, AI-ready data center solutions, which focus on three key areas including **developing an energy strategy for the AI era**; **deploying advanced infrastructure**; and **sustainability consulting**. They seek to benefit data center owners and operators as they deploy energy efficient, high-density infrastructure to support AI workloads as sustainably as possible.

"The energy and environmental impact of AI is growing at unprecedented pace, and it's paramount we bend the energy curve downward by finding new ways to decarbonize data centers and the digital infrastructure," said Pankaj Sharma, Executive Vice President, Data Centers & Networks at Schneider Electric. "At Schneider Electric, we are committed to pushing boundaries, setting new standards, and shaping the future of AI, whilst protecting the environment. This requires a strategic approach from the grid to the chip, to the chiller, and beyond."

Partnership With NVIDIA

Schneider Electric's newest data center reference design has been co-developed with NVIDIA to support liquid-cooled, AI clusters, while addressing the unique challenges of deploying liquid cooling within hyperscale, colocation and enterprise data center environments.

Building on the companies' partnership, the reference design includes options for liquid-to-liquid Coolant Distribution Units (CDUs) and direct-to-chip liquid cooling, and shares comprehensive mechanical and electrical plans to ensure more energy efficient and sustainable operations for the AI data centers of the future.

Developed using Schneider Electric's software tools including Ecodial and EcoStruxure™ IT Design CFD, the design can be customized to meet specific requirements of the AI workload, while helping users to leverage the most sustainable and energy efficient infrastructure designs for high-density applications.

"Building the future of accelerated computing and AI requires speed and a bedrock foundation," said Jensen Huang, founder and CEO of NVIDIA. "Our work with Schneider Electric enables customers to design the world's technological advances on stable and resilient infrastructure. Together, we're creating AI data centers that are purpose-built for accelerated computing, supporting complex architectures that are essential to deliver digital intelligence to every company and industry."

End-to-End AI Data Center Solutions

The announcements made at **today's virtual event** bolster Schneider Electric's commitments to creating comprehensive, sustainable, and end-to-end AI-ready data center solutions, helping customers to decarbonize their digital infrastructure anywhere, globally. They focus on three key areas including:

Energy Strategy for The AI Era: Schneider Electric supports companies in securing renewable energy and optimizing on-site power generation with diverse sources like wind, solar, and hydrogen. It provides services such as site selection and geographical analysis based on customers' deployment plans and enables on-site power generation through AlphaStruxure, which ensures speed to market, reliability, resilience, and sustainability of chosen power sources.

Advanced Infrastructure Solutions: Schneider Electric has developed a comprehensive portfolio of high-density, energy-efficient infrastructure systems for a host of AI requirements exceeding 100kW per rack. This includes data center infrastructure components from grid-to-chip and chip-to-chiller, AI-powered remote monitoring and energy management software, and digital services for lifecycle optimization.

Schneider Electric's new Galaxy VXL UPS, announced today, is the latest addition to the company's end-to-end, advanced infrastructure portfolio. For the first time, this new UPS provides customers 1.25mw scalable and modular solution with 125kw/3U power modules in 1.2m2 footprint, while being capable of supporting up to 1.25 MW of critical load in one frame and up to 5 MW with 4 units in parallel in only 4.8 M2 space.

Additionally, to address the increased temperatures of high-density workloads, Schneider Electric recently signed an agreement to acquire a majority stake in the Motivair Corporation, enhancing its liquid cooling portfolio and strengthening its expertise in direct-to-chip liquid cooling and high-capacity thermal solutions.

Efficiency and Sustainability: Schneider Electric's Sustainability Consulting business helps customers exceed decarbonization goals via tailored sustainability strategies, emissions assessments, and supplier engagement programs. These global consulting services offer customers data-driven insights via EcoStruxure Resource Advisor, and are supported by 2,400 experts in 100+ countries.

Bending The Energy Curve of AI

Schneider Electric also advocates for a science-based approach to "bend the curve" of energy consumption. Central to this approach is employing "energy intelligence for sustainable AI". Schneider

Electric believes this can be achieved by integrating data center infrastructure with AI-driven applications.

This way, industries can not only mitigate AI's energy footprint but also use AI monitoring capabilities and insights as tools for broader decarbonization efforts. Achieving this vision requires a united commitment to deploying sustainable solutions and leveraging AI's potential to drive efficiency across all sectors.

"By 2027, data center electricity consumption is projected to account for 2.5% of global demand, with the remaining 97.5% spread across industries such as buildings, manufacturing, transportation, and energy," said Sean Graham, Research Director, Cloud to Edge Datacenter Trends, IDC. "While data centers pursue their own net-zero goals amid unprecedented growth, the real sustainability promise lies in leveraging AI to decarbonize entire value chains across industries. As Schneider Electric and NVIDIA have demonstrated, long-term collaboration and innovation are essential to driving efficiency and sustainability."

For more information about Schneider Electric's new reference design, co-developed with NVIDIA, its Galaxy VXL UPS or its end-to-end, AI-ready data center solutions, visit the website.

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Related resources:

- Join Digital Broadcast hosted by Schneider Electric 'Accelerated Innovation: AI-Ready Data Center Solutions' on 04 & 05 December 2024
- Schneider Electric named the world's most sustainable company by Time magazine and Statista

About Schneider Electric

Schneider's **purpose is to create Impact** by empowering all to **make the most of our energy and resources**, bridging progress and sustainability for all. At Schneider, we call this **Life Is On**.

Our mission is to be the trusted partner in **Sustainability and Efficiency**.

We are a **global industrial technology leader** bringing world-leading expertise in electrification, automation and digitization to smart **industries**, resilient **infrastructure**, future-proof **data centers**, intelligent **buildings**, and intuitive **homes**. Anchored by our deep domain expertise, we provide integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation, software and services, delivering digital twins to enable profitable growth **for our customers**.

We are a **people company** with an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders. We embrace **diversity and inclusion** in everything we do, guided by our meaningful purpose of a **sustainable future for all**.

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