

Siemens and nVent to release joint reference architecture purpose-built for NVIDIA AI data centers

- **Modular, Tier III-capable blueprint helps operators deploy AI infrastructure faster, smarter, and more sustainably**
- **Unites industrial-grade electrical systems with leading liquid cooling technology**
- **Accelerates time-to-compute and maximizes tokens-per-watt**

Siemens and nVent are collaborating to develop a liquid cooling and power reference architecture, purpose-built for hyperscale AI workloads.

As AI workloads grow more intensive and distributed, data center infrastructure strategies must balance performance, efficiency, and scalability through increasingly intelligent and adaptive systems. To support this next generation of digital infrastructure, Siemens and nVent are combining their expertise to help data centers prepare cooling and power infrastructure for global deployment and operational resilience.

The new joint architecture developed by Siemens and nVent has been created to help customers build 100 MW hyperscale AI data centers designed to house large-scale, liquid-cooled AI infrastructure like NVIDIA DGX SuperPOD with DGX GB200 systems. It presents a Tier III-capable architecture that integrates Siemens' industrial-grade electrical and automation systems with NVIDIA DGX SuperPOD reference designs and nVent liquid cooling technology.

"We have decades of expertise supporting customers' next-generation computing infrastructure needs," said Sara Zawoyski, president of nVent Systems Protection. "This collaboration with Siemens underscores that commitment. The joint reference architecture will help data center managers deploy our cutting-edge cooling infrastructure to support the AI buildout."

“This reference architecture accelerates time-to-compute and maximizes tokens-per-watt, which is the measure of AI output per unit of energy,” said Ciaran Flanagan, Global Head of Data Center Solutions at Siemens. “It’s a blueprint for scale: modular, fault-tolerant, and energy-efficient. Together with nVent and our broader ecosystem of partners, we’re connecting the dots across the value chain to drive innovation, interoperability, and sustainability, helping operators build future-ready data centers that unlock AI’s full potential.”

Data centers today face increasing rack-level power densities, more compute-intensive workloads, and growing demand for modularity to maintain uptime and scalability. Reference architectures play a critical role aiding data center operators in rapid deployment and interface standardization, while providing a framework upon which infrastructure providers can innovate.

Siemens brings decades of expertise in industrial-grade electrical systems and intelligent infrastructure to the data center sector. Its comprehensive portfolio, from medium and low voltage power distribution to advanced automation and energy management software, enables reliable, efficient, and sustainable operation of mission-critical facilities. By combining IoT-enabled hardware, AI apps, cloud-driven software, and comprehensive digital services, Siemens empowers data center operators to accelerate transformation and scale confidently to meet the demanding infrastructure requirements of AI-driven workloads.

nVent is a leader and innovator in liquid cooling with a strong track record of solving complex cooling challenges for global cloud service providers. nVent’s industry-leading team of experts leverages its broad portfolio to help data center managers achieve their goals. Through collaboration with leading chip manufacturers, OEMs, and hyperscalers, nVent delivers reliable, scalable liquid cooling solutions that are ready to meet the future of high-density computing.

This press release as well as a press picture is available [here](#).

For more information on Siemens Smart Infrastructure, please see [Siemens Smart Infrastructure](#).

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Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings, and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions, and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. To protect this journey, we foster holistic cybersecurity to ensure secure and reliable operations. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2025, the business had around 79,400 employees worldwide.

Siemens AG (Berlin and Munich) is a leading technology company focused on industry, infrastructure, mobility, and healthcare. The company's purpose is to create technology to transform the everyday, for everyone. By combining the real and the digital worlds, Siemens empowers customers to accelerate their digital and sustainability transformations, making factories more efficient, cities more livable, and transportation more sustainable. A leader in industrial AI, Siemens leverages its deep domain know-how to apply AI – including generative AI – to real-world applications, making AI accessible and impactful for customers across diverse industries. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a leading global medical technology provider pioneering breakthroughs in healthcare. For everyone. Everywhere. Sustainably.

In fiscal 2025, which ended on September 30, 2025, the Siemens Group generated revenue of €78.9 billion and net income of €10.4 billion. As of September 30, 2025, the company employed around 318,000 people worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com.

About nVent

nVent is a leading global provider of electrical connection and protection solutions. We believe our inventive electrical solutions enable safer systems and ensure a more secure world. We design, manufacture, market, install and service high performance products and solutions that connect and protect some of the world's most sensitive equipment, buildings, and critical processes. We offer a comprehensive range of systems protection and electrical connections solutions across industry-leading brands that are recognized globally for quality, reliability, and innovation. Our principal office is in London and our management office in the United States is in Minneapolis. Our robust portfolio of leading electrical product brands dates back more than 100 years and includes nVent CADDY, ERICO, HOFFMAN, ILSCO, SCHROFF and TRACHTE. Learn more at www.nvent.com.

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